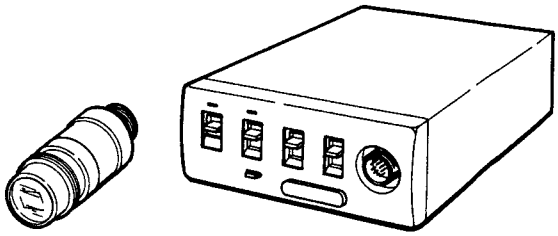
SERVICE DATA
FILE NO. 410 - 015

TOSHIBA

CCD COLOR CAMERA

IK-M48PK



SPECIFICATIONS		
Power supply		DC 12V ± 0.5V
Power consumption		5.8W
Image element		1/2", CCD image sensor, effective pixels 752 (H) x 582 (V)
Image area		6.47 x 4.83mm (1/2 inch type)
Scanning system		2:1 interlace
Scan frequency		H: 15.625 kHz, V: 50 Hz
Sync system		Internal/external, automatic switching
Resolution		H: More than 460 lines, V: More than 420 lines
Minimum intensity of illumination for objects		5 lux (F1.6, 3000K)
S/N		More than 48 dB
Video output		VBS 1.0 Vp-p (BNC terminal), PAL system, Y/C separation output (S terminal), Analog RGB (D-Sub terminal)
Output impedance		75 ohms, unbalanced
External sync	Input	VBS 1.0 Vp-p (BNC terminal), 75 ohms unbalanced
	Adjustment function	Subcarrier phase, H phase
White balance		Auto/push to set/ manual
Sensitivity switch (AGC)		SENS UP (+6 dB)/ON/OFF
Electronic shutter	Front switch	OFF (1/50) and high speed shutter selectable, AUTO
	Rear switch	Selectable one of seven: 1/125, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000
Environmental temperature/humidity		–10°C ~ 40°C/less than 90%
Weight		Camera head (without lens) 16g (0.56 oz) Camera control 620g (1.37 lbs)
Option	Lens	f = 3mm, 4mm, 7.5mm, 15mm, 24mm
	Camera cable	1m, 2m, 3m, 5m, 10m, 15m, 20m, 30m

Designa and specifications are subject to change without notice.

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CONTENTS

SECTION 1
GENERAL DESCRIPTION . . . 3

1. CAMERA PARTS AND FUNCTIONS..... 3
2. CONNECTION 5
3. OPERATION..... 5
4. SECURING THE CAMERA CONTROL UNIT..... 6
5. ELECTRONIC SHUTTER..... 6
6. WHITE BALANCE 6
7. AGC (AUTO GAIN CONTROL) 7
8. EXTERNAL SYNCHRONIZATION..... 7
9. OUTPUT 8
10. DC POWER CONNECTION..... 9
11. NOTES ON USE AND INSTALLATION 10
12. TROUBLESHOOTING..... 10
13. CONFIGURATION 11
14. OPTIONS..... 11
15. SPECIFICATIONS 12
16. EXTERIOR VIEW 13

SECTION 2
ELECTRICAL ADJUSTMENT PROCEDURES 14

1. PREPARATION BEFORE ADJUSTMENT AND CHECK ITEMS .. 14
   - 1-1. Before Adjustment 14
   - 1-2. Equipment Required..... 14
   - 1-3. Preparation 14
2. FLOW CHART 15
3. ADJUSTMENT PROCEDURES..... 16
   - 3-1. Initial Setting..... 17
   - 3-2. Input Level Adjustment..... 17
   - 3-3. VAP Adjustment..... 17
   - 3-4. YH Setting 18
   - 3-5. B Matrix Adjustment 18
   - 3-6. CHR Level Adjustment 19
   - 3-7. Burst Level Adjustment..... 19
   - 3-8. W.B Adjustment 19
   - 3-9. White Clip Adjustment..... 19
   - 3-10. R.G.B. Pedestal Level Adjustment 20
   - 3-11. R.G.B. Level Adjustment..... 20
   - 3-12. R.G.B. Peak Clip Level Adjustment..... 20
   - 3-13. AWB1 Adjustment 20
   - 3-14. AWB2 Adjustment 20
   - 3-15. AWB3 Adjustment 21
   - 3-16. Auto Shutter 1 Adjustment..... 21
   - 3-17. Auto Shutter 2 Adjustment..... 21
   - 3-18. AGC Adjustment 21
   - 3-19. Shutter Operation Adjustment..... 21
   - 3-20. External Sync Check 21
   - 3-21. 30m Cable Picture Quality Check 22
   - 3-22. Final Check..... 22

SECTION 3
SERVICING DIAGRAMS . . . 23

1. BLOCK AND CIRCUIT DIAGRAMS....23
   - 1-1. Pinted Wiring Board and Schematic Diagram 23
   - 1-2. CCU Block Diagram 25
   - 1-3. Power Supply Circuit Diagram..... 27
   - 1-4. Front Circuit Diagram..... 27
   - 1-5. Rear 1 Circuit Diagram..... 28
   - 1-6. Rear 2 Circuit Diagram..... 28
   - 1-7. Connector Circuit Diagram..... 29
   - 1-8. D-sub Connector Circuit Diagram..... 29
   - 1-9. Head Circuit Diagram..... 30
   - 1-10. Mother Circuit Diagram 30
   - 1-11. Pre Amp Circuit Diagram..... 31
   - 1-12. Driver Circuit Diagram..... 32
   - 1-13. Video Circuit Diagram..... 33
   - 1-14. R.G.B. Circuit Diagram..... 36
   - 1-15. Iris Circuit Diagram..... 38
   - 1-16. SG 1 Circuit Diagram 40
   - 1-17. SG 2 Circuit Diagram 42
   - 1-18. AWB Circuit Diagram..... 44
   - 1-19. Head FPC Circuit Diagram..... 46
2. PRINTED CIRCUIT BOARD.....48
   - 2-1. Rear 1 PC Board..... 48
   - 2-2. Front PC Board 48
   - 2-3. Connector PC Board 49
   - 2-4. Main PC Board..... 49
   - 2-5. Video PC Board 51
   - 2-6. Mother PC Board..... 53
   - 2-7. Rear 2 PC Board..... 53
   - 2-8. D-SUB PC Board 54

SECTION 4
EXPLODED VIEWS AND PARTS LIST..... 55

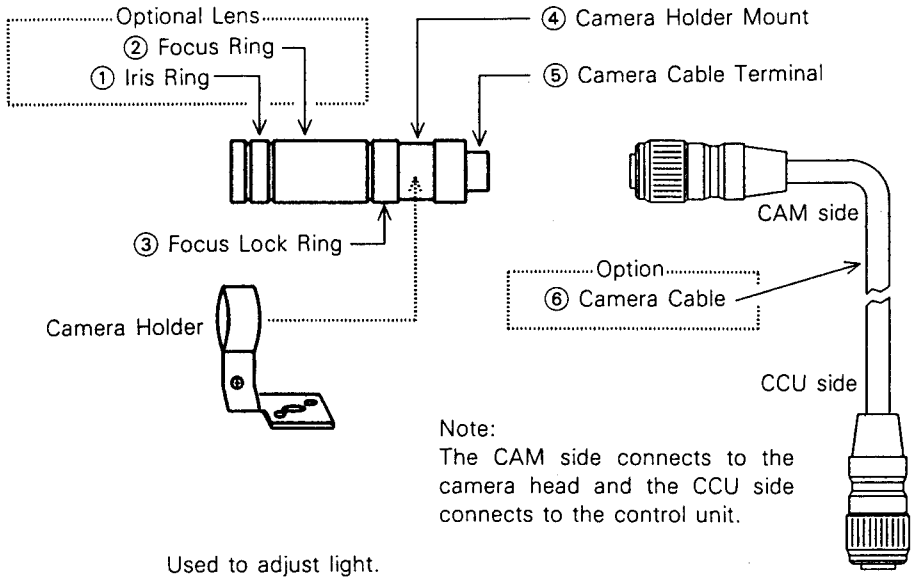
1. EXPLODED VIEWS.....56
   - 1-1. Unit Assembly..... 56
   - 1-2. Packing Assembly..... 57
2. PARTS LIST 58

SECTION 1
GENERAL DESCRIPTION

CAUTION
- **Do not use any power supply other than specified.**

1. CAMERA PARTS AND FUNCTIONS

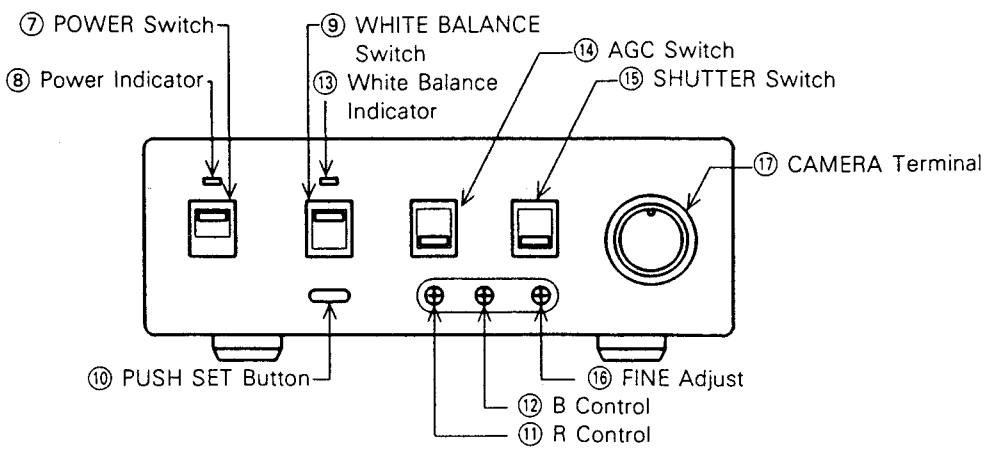
Camera Head



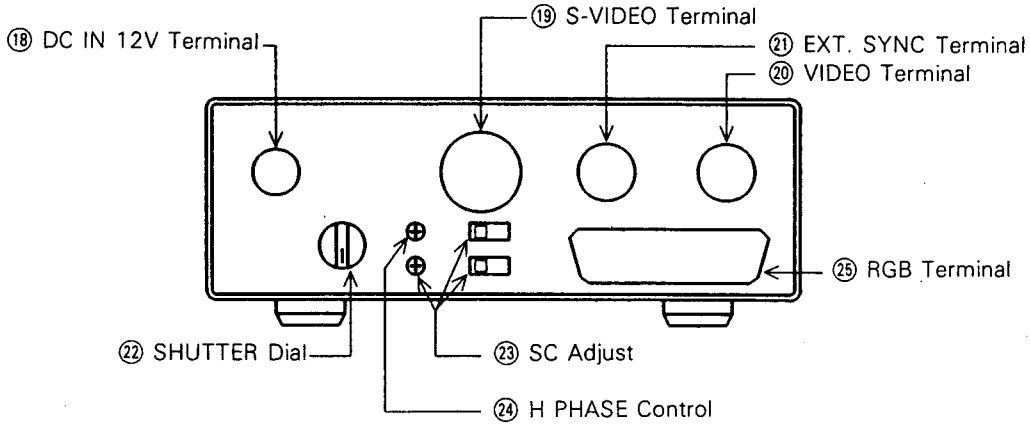
① Iris Ring	Used to adjust light.
② Focus Ring	Used to focus. Turning this ring as far as possible in the N direction to enable close-up shots at the minimum distance.
③ Focus Lock Ring	Used to lock the focus ring.
④ Camera Holder Mount	Used to attach the camera holder and attach the holder to the tripod.
⑤ Camera Cable Terminal	Connects to camera cable.
⑥ Camera Cable	Connects the camera head to the camera control unit.

Camera Control Unit

Front view



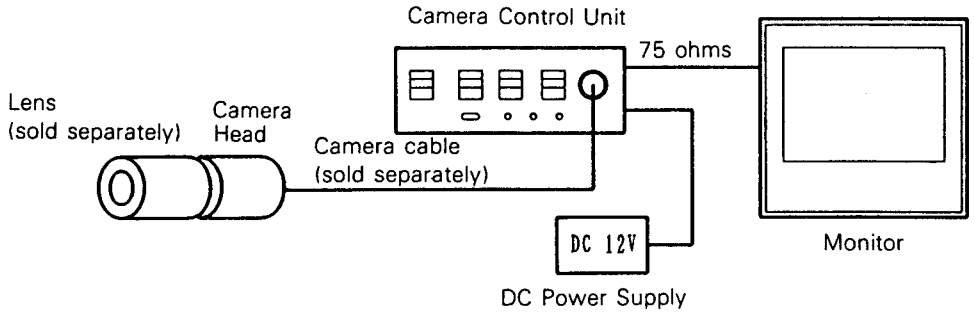
Rear view



⑦ POWER Switch	Turns power to the camera control unit on and off.
⑧ Power Indicator	Lights when the power is on.
⑨ WHITE BALANCE Switch	Used to adjust white balance. Select auto, push-set or manual.
⑩ PUSH SET Button	To use the push-set white balance, set the WHITE BALANCE Switch ⑨ to the PUSH SET side, and press the PUSH SET Button. When this button is pushed, white balance will be adjusted.
⑪ R Control	Used when the white balance is to be adjusted manually. Turn on the WHITE BALANCE switch to MANU and adjust the red (R) level.
⑫ B Control	Used as in ⑪, adjust the blue (B) level.
⑬ White Balance Indicator	Lights when white balance is taken in the PUSH SET mode. Otherwise it blinks. This indicator lights for the automatic mode and goes off for the manual mode.
⑭ AGC Switch	Turn off this switch when sufficient light is available. Turn on this switch when light is insufficient. Turn this switch to SENS UP if the sensitivity must be further increased.
⑮ SHUTTER Switch	Select AUTO, MANU or OFF (1/50 sec.) When MANU is selected, use shutter dial ㉒ .
⑯ FINE Adjust	Establishes the image level when the camera is used in AUTO shutter mode.
⑰ CAMERA Terminal	Connects to camera cable.
⑱ DC IN 12V Terminal	Connects the DC output from the DC Power Supply.
⑲ S-VIDEO Terminal	Outputs a YC (luminance/color) separate video signal. Can be connected to devices having an S-VIDEO input terminal.
⑳ VIDEO Terminal	Used to connect to a monitor or VTR. (BNC connector)
㉑ EXT. SYNC Terminal	Used to input external synchronizing signal. (BNC connector)
㉒ SHUTTER Dial	Sets a shutter speed, 1/125, 1/250, 1/500, 1/1000, 1/2000, 1/4000 or 1/10000. This dial is activated when SHUTTER Switch ⑮ is MANU position.
㉓ SC Adjust	Matches the hues of the camera's video signal when used with external synchronization.
㉔ H PHASE Control	Adjusts the horizontal phase of this Camera's video signal with the external synchronizing signal when used with external synchronization.
㉕ RGB Terminal	Outputs for RGB signal.

2. CONNECTION

<Example of standard connection>



Notes:

- **Be sure to set the POWER switch of the camera control unit to OFF before connecting or disconnecting the camera cable. Otherwise the camera head may be damaged.**
- When connecting, make sure to turn off the camera and other equipment to be connected.

1. Remove the protective cover of the camera head and attach the lens (sold separately).
2. Connect the camera cable to the terminal of the camera head and the terminal of the camera control unit.
3. Connect the VIDEO Output terminal of the camera control unit and the video input terminal of the monitor by using a video cable.
4. Connect the DC power supply to the DC IN 12V terminal of the camera control unit.

Requirement for a DC Power Supply

This camera has to be connected to a DC Power Supply specified as follows:

Voltage	:	11.5V DC to 12.5V DC
Current	:	800mA or more
Ripple	:	less than 50mVp-p
Connector	:	Type HR10A-7P-4S of HIROSE ELECTRIC CO., LTD.
		Pin assignment: Pins 1, 2 ⊕
		Pins 3, 4 ⊖

IMPORTANT

Do not connect/disconnect the Camera Cable while power is ON.
Otherwise, the camera head and/or camera control unit may be damaged.

3. OPERATION

Turn on the POWER switch of the camera control unit and adjust the lens iris or focus while watching the monitor to get the best image.

4. SECURING THE CAMERA CONTROL UNIT

The camera control unit can be fastened using M3 screws. Remove the four rubber feet on the base and fasten with M3 screws. Take care not to use screws that will extend more than 3 mm into the control unit. Otherwise, it may cause a short circuit. For the positions of the M3 screw holes, refer to the exterior view of the camera control unit.

5. ELECTRONIC SHUTTER

Select AUTO, MANU or OFF by the SHUTTER Switch of the camera control unit.

- **AUTO (used with the FINE adjust)**
  During AUTO, the camera automatically controls exposure time within the range of 1/50 to 1/50000 (sec.), so that the image level established with the FINE Adjust can be maintained despite a change in the light quantity.
- **MANU**
  By setting to MANU, and switching the rear SHUTTER Dial, any of the seven speeds (1/125, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000 sec.) can be selected.
  Note:
  The faster the shutter speed the less sensitivity. Also, flicker may increase under electric discharge lamps such as fluorescent lighting.
- **OFF**
  The standard shutter speed (1/50 sec.) is in effect.

6. WHITE BALANCE

White balance has to be adjusted to obtain a picture with the proper tones. With this camera, white balance can be selected by automatic, push-set and manual modes. In the automatic mode, the camera adjusts white balance automatically. Most shooting can be done in the automatic mode. By switching the WHITE BALANCE switch on the front of the camera control unit, the push-set mode or manual mode can be selected.

	AUTO	PUSH SET	MANU
Description	The camera automatically measures the color temperature and checks white balance.	While the camera is shooting a white object, white balance can be adjusted by pushing the PUSH SET button on the camera control unit for a few seconds.	Adjust the red (R) and blue (B) levels while the camera is shooting a white object.
Features	Variety of illumination conditions are automatically traced.	More precise than the AUTO mode. After the power is turned off, this mode remains in effect for approx. 2 hours.	The precision is higher than the AUTO or PUSH SET mode.
Remarks	Under adverse illumination conditions, white balance cannot be controlled.	When the source of light is changed or the white balance indicator blinks, reset it.	Adjustment should be made while the image is being monitored.

7. AGC (Auto Gain Control)

The AGC Switch is usually turned OFF. Turn the switch ON when light is insufficient, and turn it to SENS UP when light is still insufficient. The sensitivity is doubled by turning the switch ON, and is doubled again by turning it to SENS UP. However, increasing the sensitivity also increases noise. Increase light as mutch as possible to obtain a fine image.

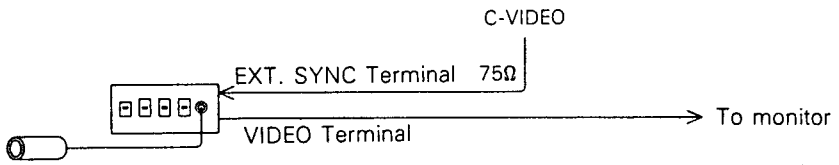
8. EXTERNAL SYNCHRONIZATION

To externally synchronize this camera, input a composite video (C-VIDEO) signal to the EXT. SYNC Terminal on the rear of the camera control unit. When an external synchronizing signal is input, the synchronization is automatically switched to external synchronization.

- External synchronizing signal input conditions

C-VIDEO	(SYNC)	0.3±0.1V
(75 ohms unbalanced)	(BURST)	0.3±0.1V

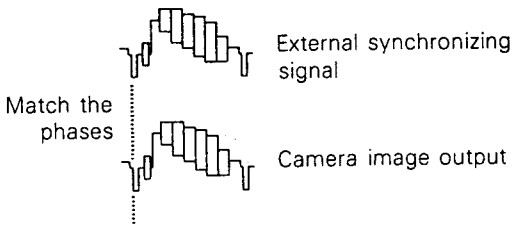
- External synchronization pull-in frequency range
  ±50 ppm for the PAL standard frequency
  (horizontal frequency: 15623.4 Hz to 15625.8 Hz)

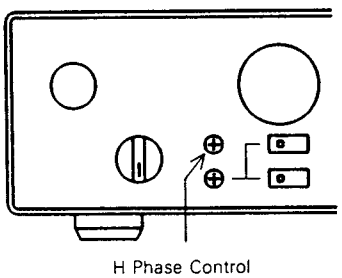


When two cameras or more are used simultaneously through external syncronization, adjust them so that switching from one camera to another does not make any difference in picture tones. Adjust the H (horizontal) phase and the SC (sub carrier) phase.

Horizontal (H) phase matching

Monitor the waveforms of the external synchronizing signal and the video signal output of the camera using a dual-trace oscilloscope, and turn the H Phase Control to match H phases.

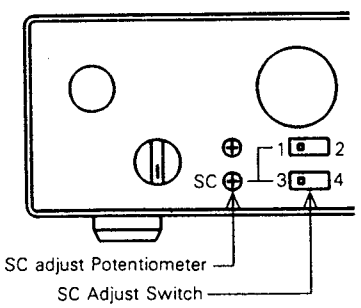




Adjusting the SC (Sub Carrier) phase

For use with external synchronization, the tones of the video signal output by this camera can be matched. This is done by switching the SC Adjust Switch, and then fine tuning with the SC Adjust Potentiometer. Higher precision can be obtained by using a vector scope for phase matching.

SC phase	0°	90°	180°	270°
Switch positions	1 2 / 3 4	1 2 / 3 4	1 2 / 3 4	1 2 / 3 4

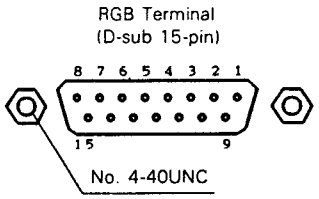


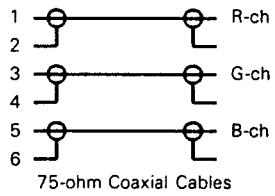
9. OUTPUT

Terminal	Output	Remarks
VIDEO	Video (VBS) 1.0 Vp-p	75-ohm BNC terminal
S-VIDEO	Y: 1.0 Vp-p C: 0.3 Vp-p	75-ohm 4-pin S terminal
RGB	0.7 Vp-p / 1.0 Vp-p (with sync 0.3 Vp-p)	75-ohm D-sub 15-pin terminal

RGB

- **Connection**

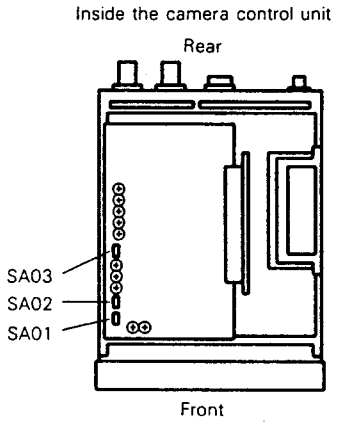




- **Auxiliary function**

Auxiliary function		Control	Factory Preset
DETAIL	on/off	SA03	on
GAMMA	1/0.45	SA02	0.45
SYNC	on/off	SA01	on

Caution:
Do not touch internal parts other than specified. Otherwise, the camera function or performance may be degraded.

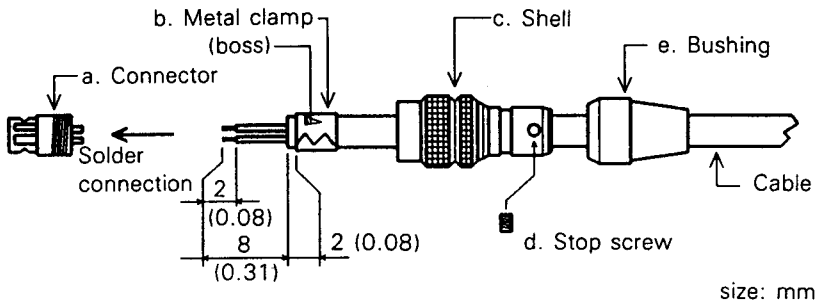


- **Color frequency band**

1MHz −3dB

10. DC POWER CONNECTION

Use the supplied connector HR10A-7P-4S (of HIROSE). The connector consists of the following five parts a through e:



size: mm (inch)

Use a cable diameter 5 mm (0.2 inch) or less.

Procedures

1. Insert the cable into the bushing and the shell, as shown. (To avoid losing the stop screw, remove it beforehand.)
2. Solder the cable to the connector. (Check for continuity to avoid short circuit between terminals.)

Pin assignment: Pins 1, 2 ⊕ Pins 3, 4 ⊖

3. Secure the metal clamp by clinching. Use the application tool HR10A-TC-02 of HIROSE. (Apply with 5.3 side.)
4. Screw the shell onto the connector until tight. (Make sure not to turn the connector and the cable. Otherwise, the cable will be twisted.)
5. Tighten the stop screw so that it fits securely into the boss. Use a 0.05 inch (1.27 mm) hexagon wrench.
6. Slide the bushing up until it fits securely against the shell, covering the connections.

11. NOTES ON USE AND INSTALLATION

- **Treat the camera cable with care. Otherwise, the cable can be damaged.**

- **Do not aim the camera at the sun**
  Do not aim the camera at the sun or point it at the sun even if you are not shooting.

- **Do not shoot intense light**
  Framing intense light such as a spotlight may cause a bloom or smear. A vertical stripe may appear on the screen. However, this is not a malfunction.

- **Treat the camera with care**
  Do not drop the camera or subject it to strong shock or vibration. Otherwise, the camera may malfunction.

- **Never touch internal parts**
  Do not touch the internal parts of the camera other than the parts specified. Otherwise, the camera may malfunction.

- **Do not splash water on the camera**
  Install the camera where the camera can be kept dry. If the camera gets wet, turn off the power and contact your dealer.

- **Install the camera where no video noise appears**
  If cables are wired near electric lighting wires or a TV set, noise may appear in images. In this event, relocate cables or reinstall equipment.

- **When you do not intend to use the camera for a long time**
  Set the camera POWER switch to the OFF side and stop supplying power to the camera.

- **Check the ambient temperature and humidity**
  Avoid using the camera where the temperature is hotter or colder than specified. Otherwise, the quality of images may deteriorate or internal parts may be affected. Special care is required to use the camera at high temperature and humidity.

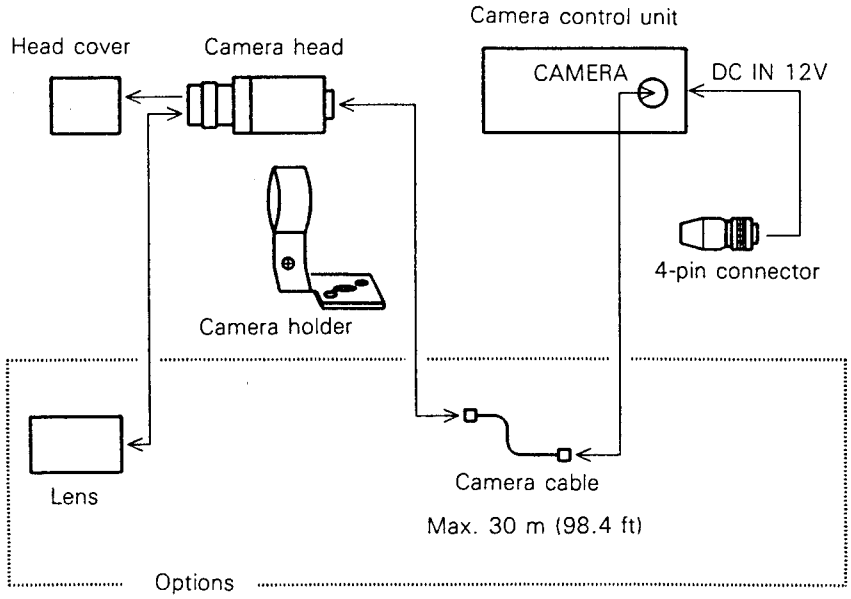
- **Should you notice any trouble**
  If any trouble occurs while you are using the camera, turn off the power and contact your dealer. If you continue to use the camera when there is something wrong with it, the trouble may worsen and an accident may occur.

12. TROUBLESHOOTING

Condition	Check points
No image	• Are the camera and connected equipments turned on? • Is the iris of the lens adjusted properly? • Are cables connected correctly?
Unnatural color	• Is the monitor adjusted correctly? • Was the white balance of the camera adjusted (when not switched to auto-adjustment)? • Is the lighting sufficient? • Was the SC phase adjusted (external synchronization)?

13. CONFIGURATION

(1) Camera head (attached to head cover) 1
(2) Camera control unit 1
(3) Accessories
  (a) Camera holder 1
  (b) 4-pin Connector (HR10A-7P-4S) 1
  (c) Instruction manual 1



14. OPTIONS

Lens

Model	Focal length mm (in)
JK-L03M	3 (0.12)
JK-L04M2	4 (0.16)
JK-L75M	7.5 (0.3)
JK-L15M2	15 (0.6)
JK-L24M2	24 (0.94)

Camera Cable

Model	Length m (ft)	Diameter mm (in)
EXC-401M	1 (3.3)	5.0 (0.2)
EXC-402M	2 (6.5)	5.0 (0.2)
EXC-403M	3 (9.8)	5.0 (0.2)
EXC-405M	5 (16.4)	5.0 (0.2)
EXC-410M	10 (32.8)	7.0 (0.28)
EXC-415M	15 (49.2)	7.0 (0.28)
EXC-420M	20 (65.6)	7.0 (0.28)
EXC-430M	30 (98.4)	7.0 (0.28)

15. SPECIFICATIONS

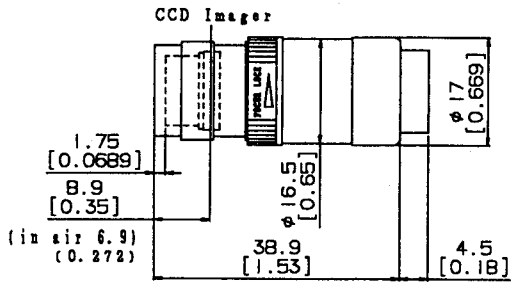
Signaling system		PAL (Phase Alternation by Line)
Power supply		12±0.5V DC Input: HR10A-7R-4P (Applicable to HR10A-7P-4S) of HIROSE CO., LTD. or equivalence. Pins 1, 2: +, Pins 3, 4: −
Power consumption		5.8 W
Image sensor		1/2″ CCD image sensor, effective pixels: 752 (H) × 582 (V)
Image sensing area		6.47 × 4.83 mm
Scanning		2:1 interlace scanning
Scanning frequency		15.625 kHz (H), 50 Hz (V)
Synchronization		Internal/external synchronization (automatic switch)
Resolution	Video/Y	460 or more horizontal lines 420 or more vertical lines
	RGB	400 or more horizontal lines 350 or more vertical lines (detail on)
Minimum subject illumination		5 lux (F 1.6, 3000 K)
S/N ratio		48 dB or more
Output		VBS 1.0 Vp-p (BNC pin), separate Y and C signals (S pin), and analog RGB (D-sub 15-pin)
Output impedance		75 ohms unbalanced
External synchronizing	Input	VBS 1.0 Vp-p (BNC pin)/75 ohms unbalanced
	Adjust function	Subcarrier phase, horizontal phase
White balance		Automatic/push-set/manual
AGC		SENS UP (+6 dB)/ON/OFF
Electronic shutter		Automatic/manual/off Automatic: 1/50 ~ 1/50000 sec. Manual : 1/125, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000 sec Off : 1/50 sec.
Camera cable (option)		Up to 30 m (98.4 ft)
Utilization condition		Temperature: −10°C to +40°C (14°F to 104°F) Humidity: less than 90%
Weight		Camera head: 16 g (0.56 oz) Camera control unit: 620 g (1.37 lb)

- Design and specifications may be changed without prior notice.

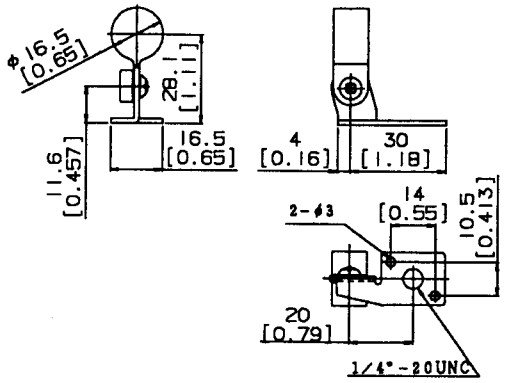
Note:
The camera head and the camera control unit must be used as a set. These parts cannot be used coupled with different model. (Matching numbers are provided on the camera head and the camera control unit.)

16. EXTERIOR VIEW

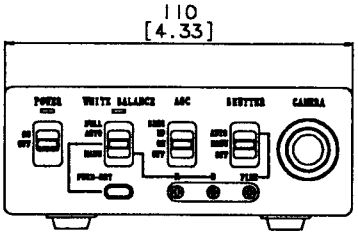
Camera Head



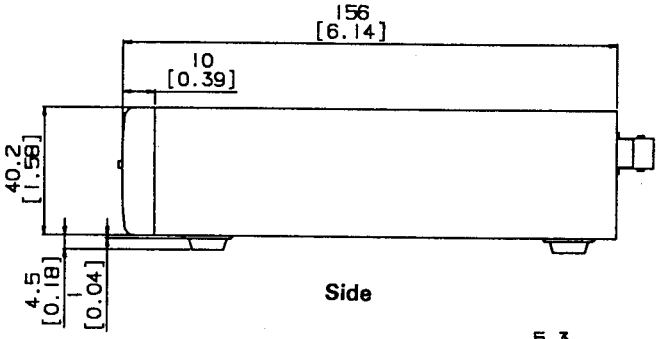
Camera Holder



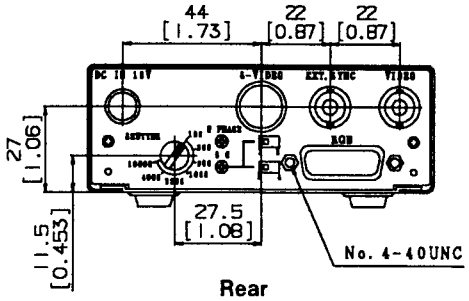
Camera Control Unit



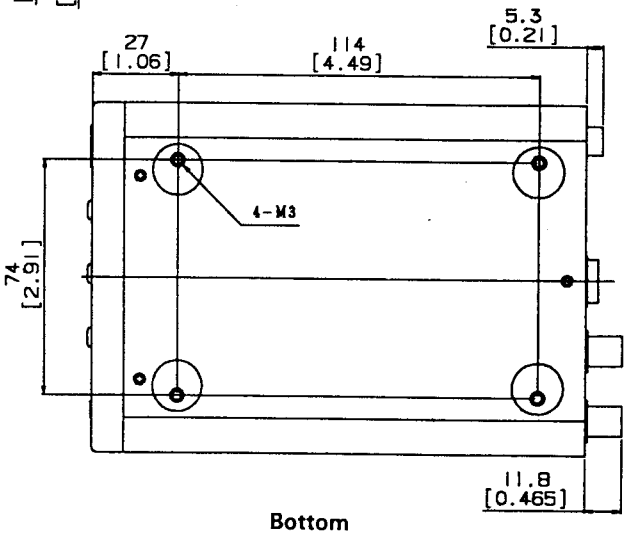
Front



Side



Rear



Bottom

Dimensions. mm [inch]
φ: diameter

SECTION 2
ELECTRICAL ADJUSTMENT PROCEDURES

1. PREPARATION BEFORE ADJUSTMENT AND CHECK ITEMS

1-1. Before Adjustment

The Adjustment procedures in this manual should be used only when some electrical components are replaced and related electrical adjustments are needed.
When some failures occur, always locate the failures using measurement equipments and perform repairing , replacing, and then make required adjustments. Do not try to make any adjustment before you do not find the location (s).
Moreover, some of failures may not require readjustment, so always perform the adjustment as required.

1-2. Equipment Required

1. Oscilloscope 5mV/div., 2 channels
2. Color video monitor
3. Lighting
   Halogen lamp (500W) x 2

Note:
If unevenness illumination exists on the pattern surface, correct adjustment will not be performed, so adjust lighting devices until flat illumination is obtained.

4. Camera adjustment chart
   Color bar chart 70909322
   Gray scale chart 70909321

Note:
Use new test charts without dirt

5. Adjustment drivers
6. Color temperature conversion filter (C16)
7. Tripod, lens, and AC adapter
   (or DC12V power supply)
8. Connection cables
   (video cable)
9. Vector scope

1-3. Preparation

1. Place the chart at a position of about 50cm in front of the camera, and adjust light positions so that flat illumination is obtained at the test chart.
2. Connect the video output signal to the monitor and terminate it with a 75 ohm resistor.
3. Set switches on the CCU (Camera Control Unit) as follows:
   - Front panel

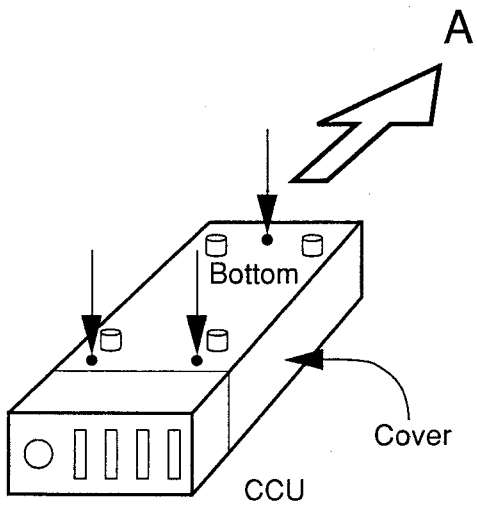
POWER	ON
WHITE BALANCE	FULL AUTO
AGC	OFF
SHUTTER	OFF

   - Rear panel

SHUTTER	125

Note:
Perform the adjustment in a place free from dusts, rubbish, etc. so that the camera head is free from dirty.

4. How to open CCU
   1) Disconnect all cables connected to the CCU.
   2) Remove three screws on bottom of the CCU.
   3) Pull out the cover by sliding it in the direction A shown.



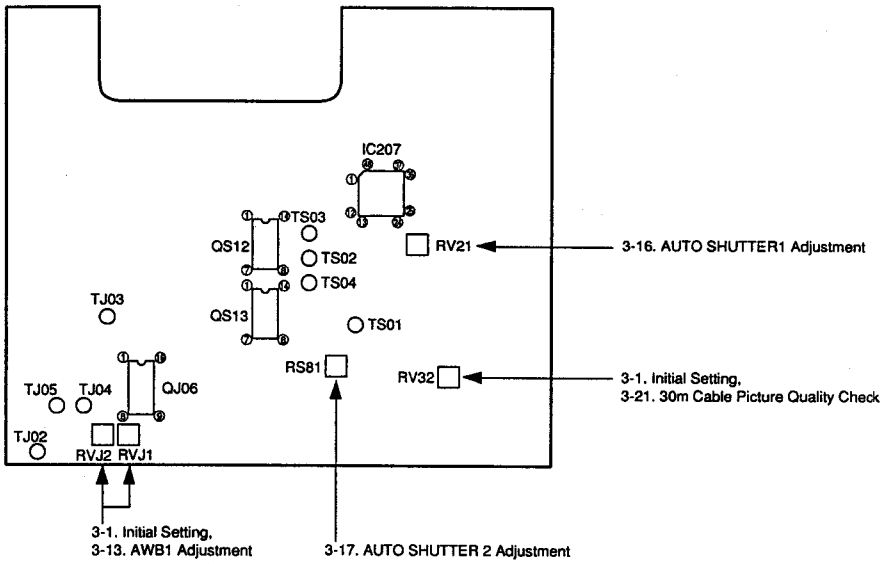
2. FLOW CHART

The adjustment procedures given in this manual are described in the order required to perform all items. In practical field, perform only the items required according to the servicing carried out.

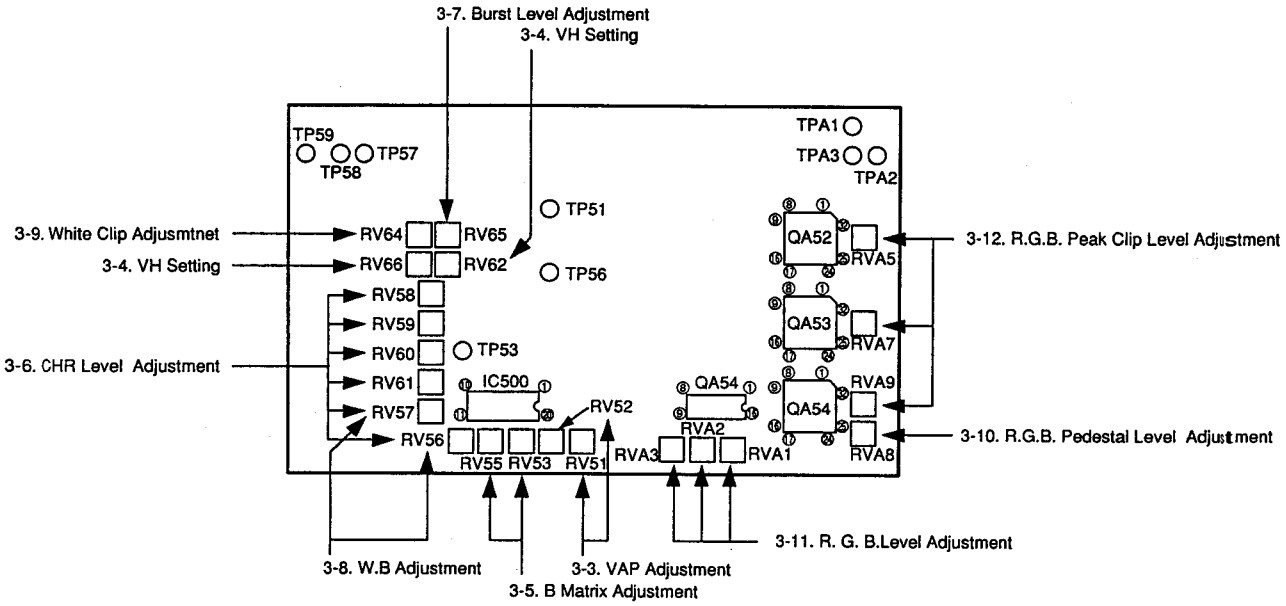
1. Initial setting
↓
2. Input level Adjustment
↓
3. VAP Adjustment
↓
4. YH Adjustment
↓
5. B matrix Adjustment
↓
6. CHR level Adjustment
↓
7. Burst level Adjustment
↓
8. WB Adjustment
↓
9. White clip Adjustment
↓
10. R.G.B. Pedestal level Adjustment
↓
11. R.G.B. level Adjustment
↓
12. R.G.B. Peak clip level Adjustment
↓
13. AWB1 Adjustment
↓
14. AWB2 Adjustment
↓
15. AWB3 Adjustment
↓
16. Auto shutter 1 Adjustment
↓
17. Auto shutter 2 Adjustment
↓
18. AGC check
↓
19. Shutter operation check
↓
20. External sync check
↓
21. 30m cable picture quality check
↓
22. Final check

3. ADJUSTMENT PROCEDURES

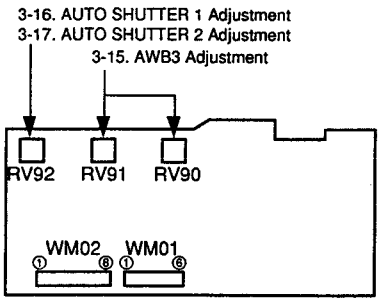
ADJUSTMENT PART LOCATION DIAGRAM



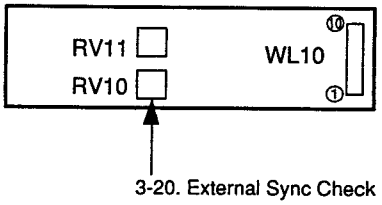
Main P.C. Board



Video P.C. Board



Front P.C. Board



Rear 2 P.C. Board

3-1. Initial Setting

Adjusting point: RVJ1, RVJ2, RV32

1. Set front switches as follows:

POWER	ON
WHITE BALANCE	FULL AUTO
AGC	OFF
SHUTTER	OFF

2. Turn RVJ1 clockwise and RVJ2 fully counter clockwise and RV32 clockwise.
3. Set switches on the Video P.C. Board as follows.

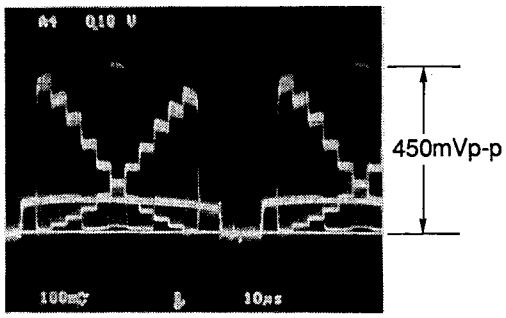
SYNC	ON
γ	0.45
AP	ON

4. Check to see POWER LED is turned on.
   Check to see AWB LED is turned on.

3-2. Input Level Adjustment

Test point: TP51
Test equipment: Oscilloscope
Adjusting point: Lens aperture

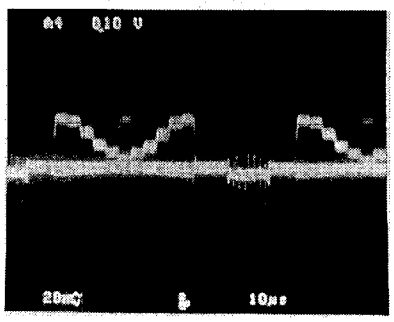
1. Shoot the gray scale to fill whole screen and adjust lens aperture so that waveform at TP51 shows 450 mVp-p.



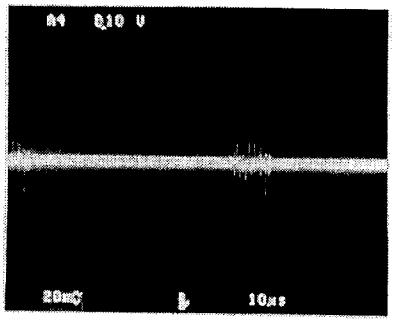
3-3. VAP Adjustment

Test point: TP56
Test equipment: Oscilloscope
Adjusting point: RV51, RV52

1. Shoot the gray scale to fill whole screen. Check amplitude of waveform at TP56 is minimum. (If not, perform following steps.)
2. Turn RV51 fully counterclockwise and adjust RV52 so that waveform amplitude at TP56 shows minimum.
3. Turn RV51 clockwise and then the waveform will appear again. Further turning in clockwise direction decreases the amplitude. Fix the adjustment at the minimum position.



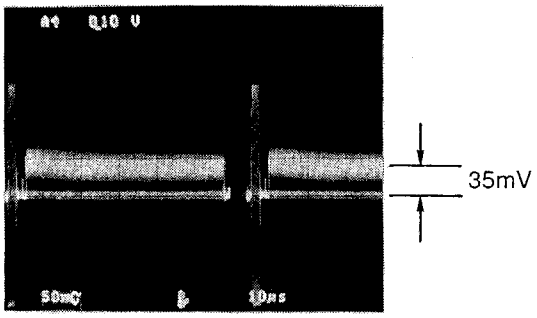
⇓



3-4. YH Setting

Test point: TP51, TP57
Test equipment: Oscilloscope
Adjusting point: RV62, RV66

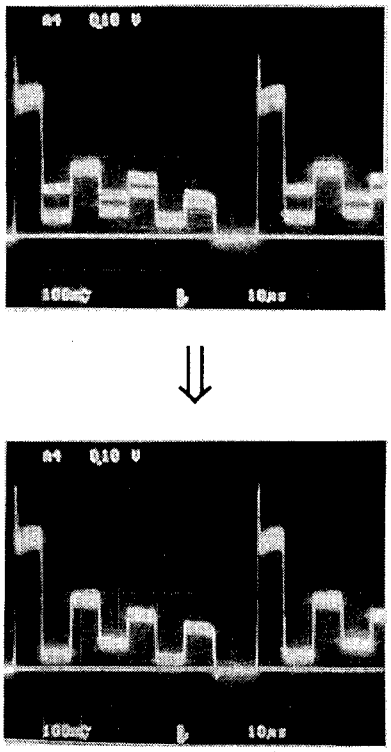
1. Attach the lens cap and adjust RV66 so that pedestal level at TP57 shows 35 mVp-p.
2. Shoot the gray scale to fill whole screen. Adjust lens aperture so that waveform level of 450 mVp-p is obtained at TP51.
3. Adjust RV62 so that white part of the gray scale shows 700 mVp-p at TP57. (Hereafter, this level is called gray scale shooting.)



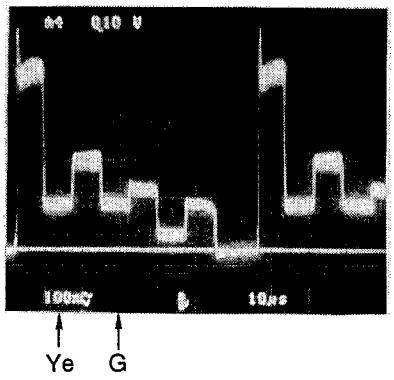
3-5. B Matrix Adjustment

Test point: TP53
Test equipment: Oscilloscope
Adjusting point: RV53, RV55

1. Shoot the color bar chart to fill whole screen and to obtain 700 mVp-p at white at TP57. (Hereafter, this operation is called a color bar shooting.)
2. Check waveform image at TP53 is doubled or not at Ye part.
   If doubled adjust RV53.



3. Perform the color bar shooting at TP53. AdjustRV55 so that the following relation is obtained among Ye level and G level.
   Ye=G

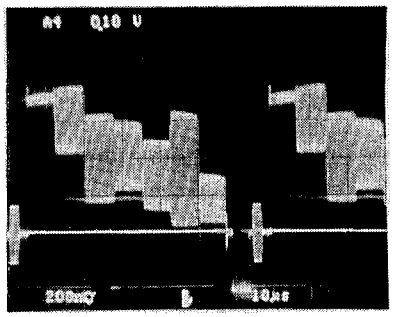


3-6. CHR Level Adjustment

Test point: TP57
Test equipment: Oscilloscope, vector scope
Adjusting point: RV56 – 61

1. Shoot white part of the color bar at center of the screen and set the white peak to 700mV at TP57.
2. Adjust RV56 and RV57 for minimum white carrier.
3. Shoot red part and blue part of the color bar at center of the screen respectively. Adjust color gain with RV58 & RV59, and hue with RV60 & RV61 to obtain the values given in the table.

	Gain	Hue
R carrier	650mV	104 degrees
B carrier	250mV	350 degrees



3-7. Burst Level Adjustment

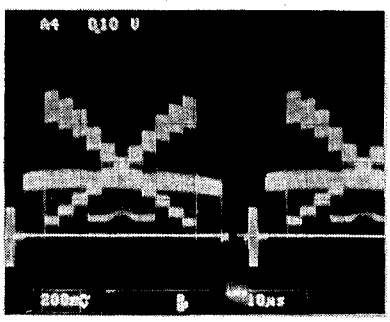
Test point: TP57
Test equipment: Oscilloscope
Adjusting point: RV65

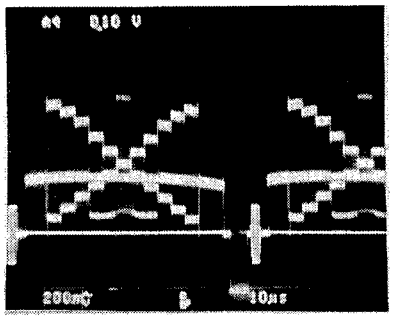
1. Adjust RV65 so that burst level at TP57 shows 300 mVp-p.

3-8. W.B Adjustment

Test point: TP57
Test equipment: Oscilloscope
Adjusting point: RV56, RV57

1. Shoot the gray scale to fill whole screen.
2. Adjust RV56 and RV57 alternately so that carrier signal of stair step waveform shows minimum.

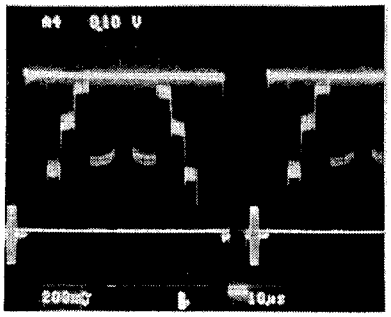




3-9. White Clip Adjustment

Test point: TP57
Test equipment: Oscilloscope
Adjusting point: RV64

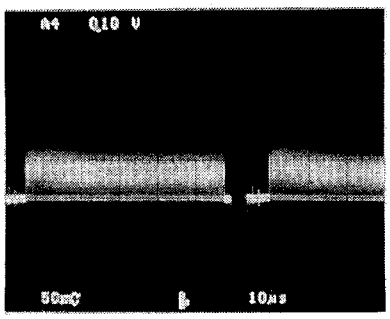
1. Shoot the gray scale to fill whole screen. Open the lens aperture so that sufficient saturation occurs on the waveform. Adjust RV64 so that 840mV is obtained at TP57.



3-10. R.G.B. Pedestal Level Adjustment

Test point: TPA1
Test equipment: Oscilloscope
Adjusting point: RVA8

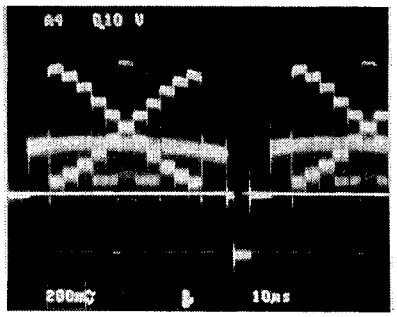
1. Attach the lens cap and adjust RVA8 so that pedestal level at TPA1 shows 35 mVp-p.



3-11. R.G.B. Level Adjustment

Test point: TPA1, TPA2, TPA3
Test equipment: Oscilloscope
Adjusting point: RVA1, RVA2, RVA3

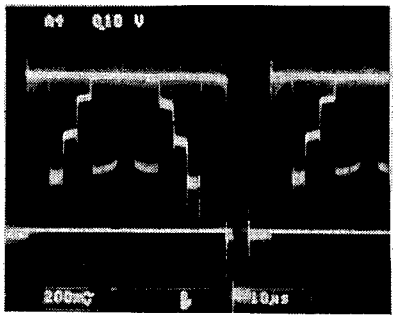
1. Shoot the gray scale to fill whole screen.
2. Adjust RVA1 so that white part of gray scale shows 700 mVp-p at TPA3.
3. Adjust RVA2 so that white part of gray scale shows 700 mVp-p at TPA2.
4. Adjust RVA3 so that white part of gray scale shows 700 mVp-p at TPA1.



3-12. R.G.B. Peak Clip Level Adjustment

Test point: TPA1, TPA2, TPA3
Test equipment: Oscilloscope
Adjusting point: RVA5, RVA7, RVA9

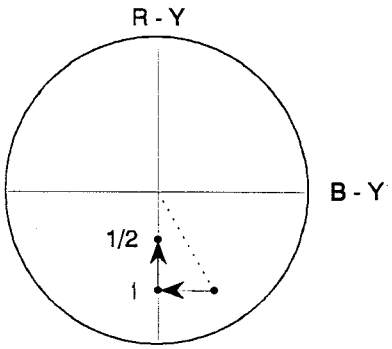
1. Shoot the gray scale to fill whole screen. Open the lens aperture so that sufficient saturation occurs on the waveform.
2. Adjust RVA5 so that 840mV is obtained at TPA3.
3. Adjust RVA7 so that 840mV is obtained at TPA2.
4. Adjust RVA9 so that 840mV is obtained at TPA1.



3-13. AWB1 Adjustment

Test point: TJ04, TJ05
Test equipment: Oscilloscope
Adjusting point: RVJ1, RVJ2

1. Shoot the gray scale to fill whole screen with the specified color conversion filter (C16) attached and to obtain 700 mVp-p at white peak.
2. Adjust RVJ1 so that hue is brought onto R – Y axis. Then, adjust RVJ2 so that the carrier level decreases to 1/2.
3. Check 4.9 ± 0.3V is obtained at TJ04 and TJ05. (If not, turn RVJ1 fully clockwise and RVJ2 fully counterclockwise, and return to the step 2.)
4. Short circuit TJ02 and TJ03 with a clip, and adjust RVJ1 and RVJ2 to make white balance. Remove the clip after the adjustment.



3-14. AWB2 Adjustment

Test point: TP57
Test equipment: Oscilloscope
Adjusting point:

1. Shoot the gray scale to fill whole screen, and make sure the carrier is within 105mV.
2. Remove the color temperature conversion filter and shoot the gray scale. Make sure the carrier is within 105mV.

3-15. AWB3 Adjustment

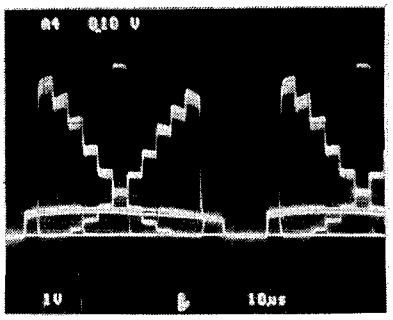
Test point: TP57
Test equipment: Oscilloscope
Adjusting point: R, B controls (RV90, RV91)

1. Set the AWB SW to PUSH SET position.
2. Shoot the gray scale to fill whole screen. Push the PUSH SET button and check carrier is within 105mV. Also check, the AWB LED will change from blinking to lighting up under this condition.
3. Set the AWB SW to MANU position. Adjust FRONT R and B controls for minimum carrier. Make sure the AWB LED is turned off.

3-16. AUTO SHUTTER 1 Adjustment

Test point: TP57, TS01, TS04
Test equipment: Oscilloscope
Adjusting point: RV21, FINE (RV92)

1. Shoot the gray scale to fill whole screen.
2. Adjust FRONT FINE control so that 1.65V is obtained at TS04.
3. Adjust RV21 so that 4.5V is obtained at TS01. Shoot the gray scale to fill whole screen and to obtain 840 mVp-p at white at TP57. Set the SHUTTER SW to AUTO.



3-17. AUTO SHUTTER 2 Adjustment

Test point: TP57, TS02, TS03
Test equipment: Oscilloscope
Adjusting point: RS81, FINE (RV92)

1. Short circuit TS02 and TS03 with a clip, and adjust RS81 so that 700mV is obtained at TP57.
2. Remove the clip, and make sure amplitude of white shows 700mV.
3. Turn the FRONT FINE switch and confirm the white peak level changes more than 35mV.
4. Adjust FRONT FINE control so that 700mV is obtained at TP57.

3-18. AGC Adjustment

Test point: TP57
Test equipment: Oscilloscope
Adjusting point: AGC SW

1. Shoot the gray scale to fill whole screen. Adjust the lens aperture so that white peak shows 280mV.
2. Turn on the AGC switch and make sure amplitude of white shows 450mV.
3. Place the AGC switch to SENS UP and make sure amplitude of white shows 630mV.
4. Turn off the AGC switch.

3-19. Shutter Operation Adjustment

Test point: TP57
Test equipment: Oscilloscope
Adjusting point: SHUTTER SW, SHUTTER VR

1. Shoot the gray scale so that white level shows 700mV at TP57.
2. Set the SHUTTER SW to MANU.
3. Switch the SHUTTER VR on the rear panel from 1/125 through 1/10000 successively, and make sure the white level will decrease according to the switching. Also make sure that no abnormality occurs during above operations.
4. Set the SHUTTER SW to OFF and the SHUTTER VR to 1/125.

3-20. External Sync Check

Test point: VIDEO OUT
Test equipment: Oscilloscope, monitor
Adjusting point: H phase VR (RV10)

1. Feed an external sync signal (VBS or BBS)
2. Check the external sync signal and the camera VIDEO output are synchronized. If not, turn H phase to adjust SYNC position.
3. Check scope display shows no abnormality.

3-21. 30m Cable Picture Quality Check

Test point: TP57
Test equipment: Oscilloscope, monitor
Adjusting point: RV32

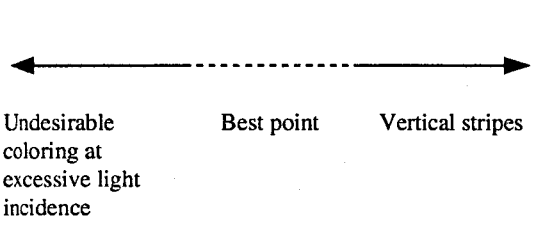
1. Connect a 30m cable and make sure no abnormality occurs on picture quality. Use the gray scale and the color bar. (In this case also make sure the waveform does not show any abnormality.)
2. Shoot excessively high incidence light with the 30m cable connected and make sure there is no vertical stripes or no discoloring occur at the light incidence part. If not, adjust RV32 to obtain the best picture quality.

Measurement condition for item of 3-21

1. Switch positions on the front panel

WHITE BALANCE	FULL AUTO
AGC	OFF
SHUTTER	OFF

2. Lens: Fully open
3. RV32 adjustment



4. Object:Fluorescent lamp (about 2000 lux)
5. Shoot the object so that it is brought at upper half of the screen, and make sure undesirable coloring due to excessive incident light at the upper half and the vertical stripes at lower half of the screen.

3-22. Final Check

1. Check switches on the front panel are positioned as follows:

POWER	OFF
WHITE BALANCE	FULL AUTO
AGC	OFF
SHUTTER	OFF

2. Check switches and controls on the rear panel are positioned as follows:

SHUTTER VR	125
SC SW	1,3

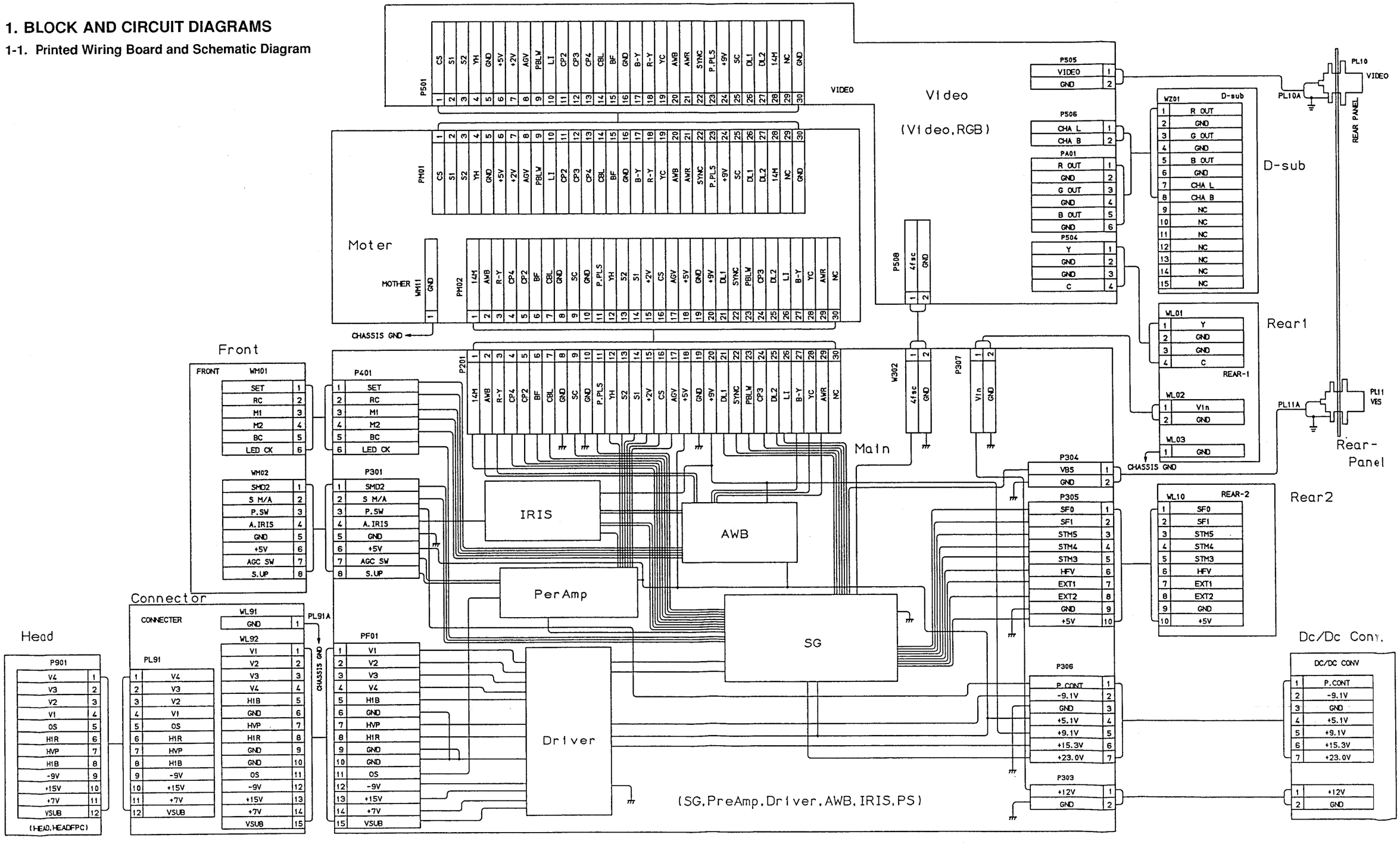
3. Check switches on the Video P.C. Board are positioned as follows:

SYNC	ON
γ	0.45
AP	ON

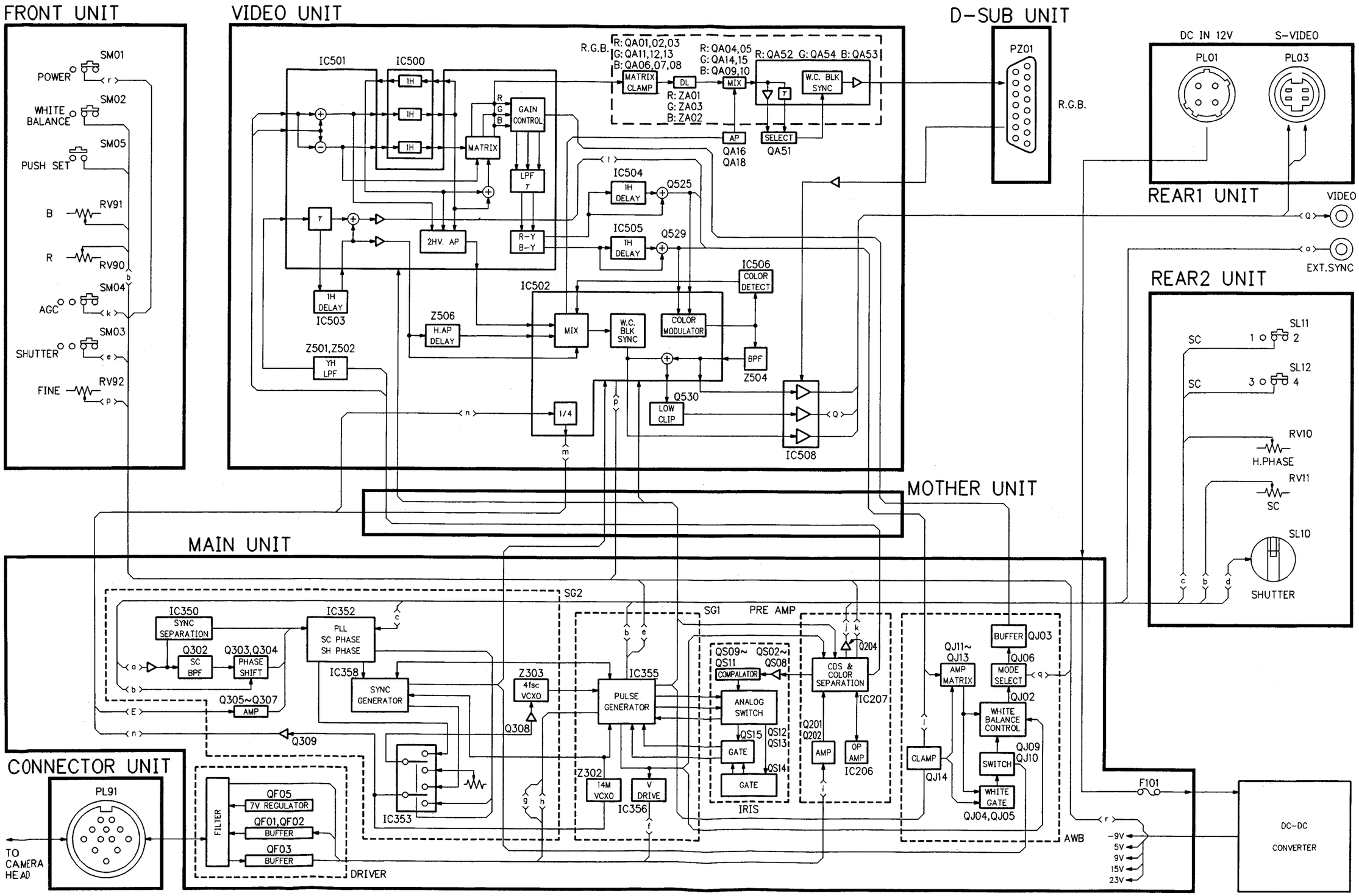
SECTION 3
SERVICING DIAGRAMS

1. BLOCK AND CIRCUIT DIAGRAMS

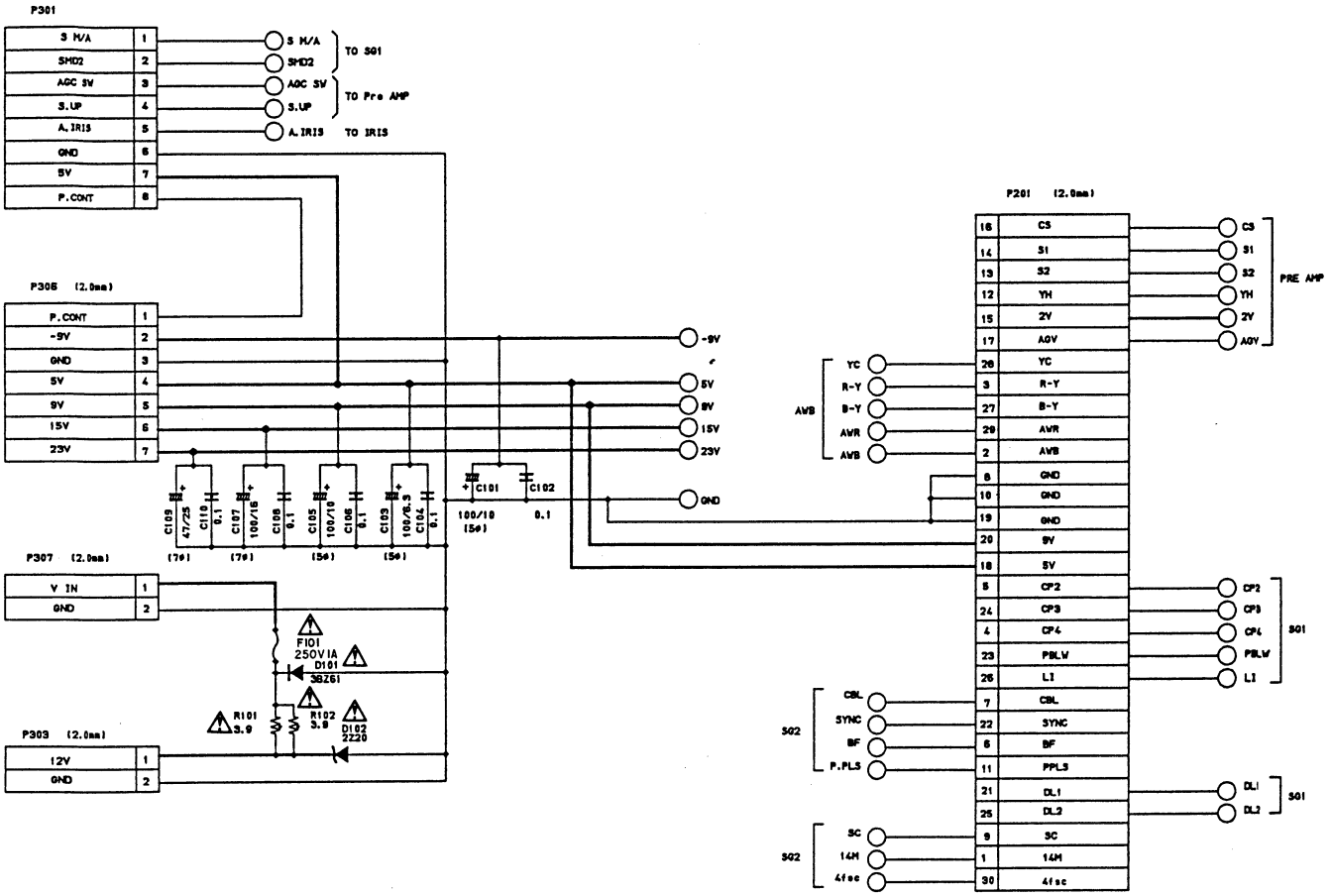
1-1. Printed Wiring Board and Schematic Diagram



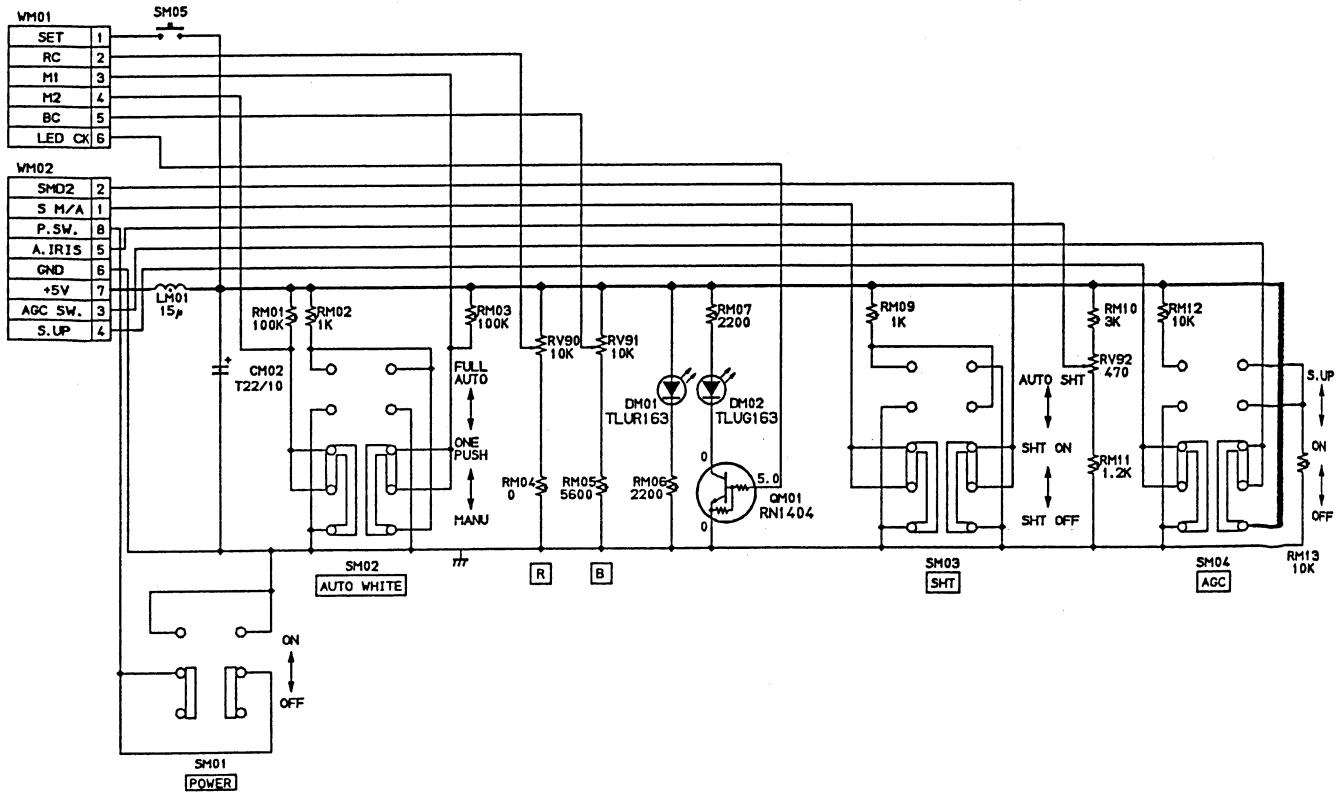
1-2. CCU Block Diagram



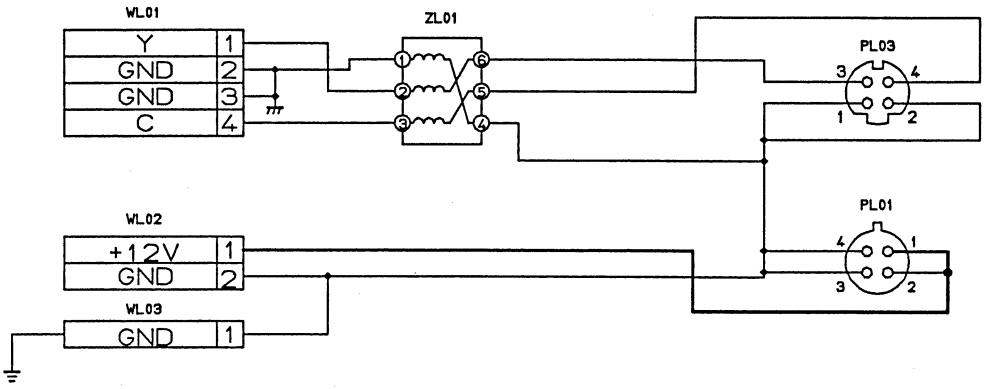
1-3. Power Supply Circuit Diagram



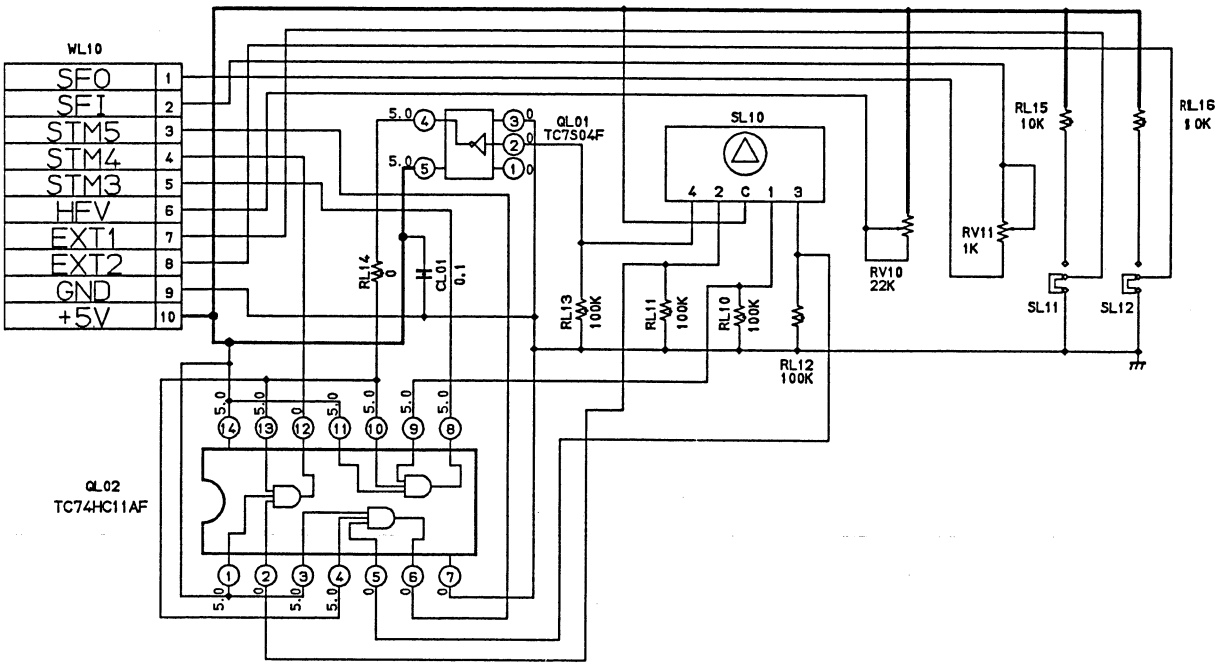
1-4. Front Circuit Diagram



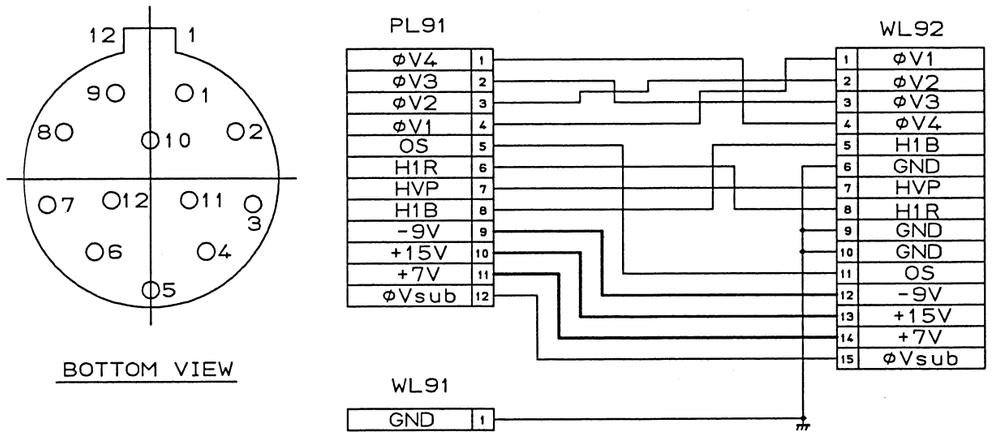
1-5. Rear 1 Circuit Diagram



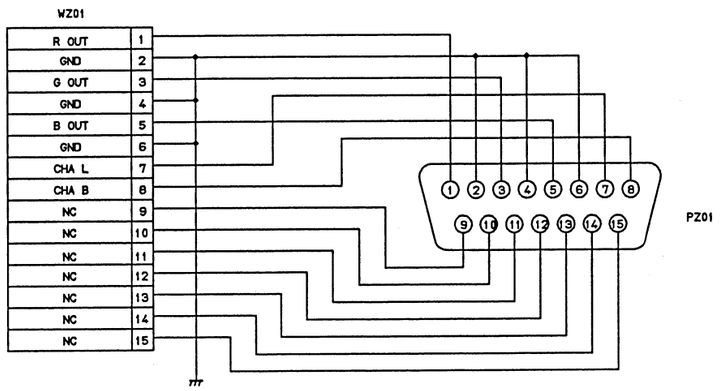
1-6. Rear 2 Circuit Diagram



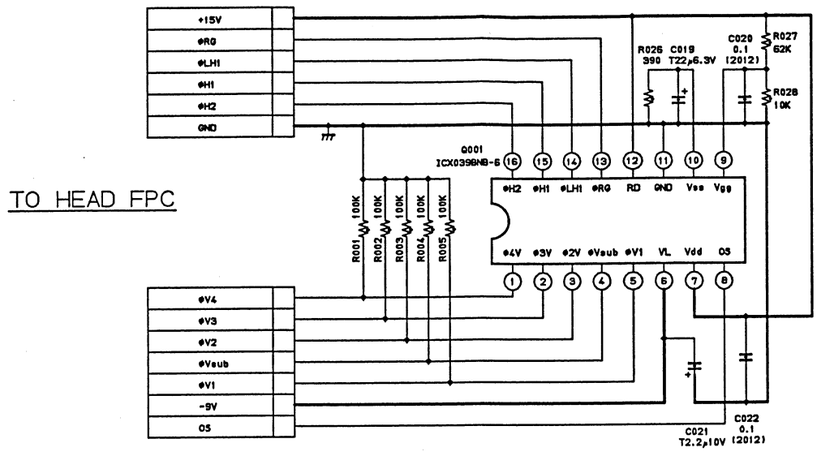
1-7. Connector Circuit Diagram



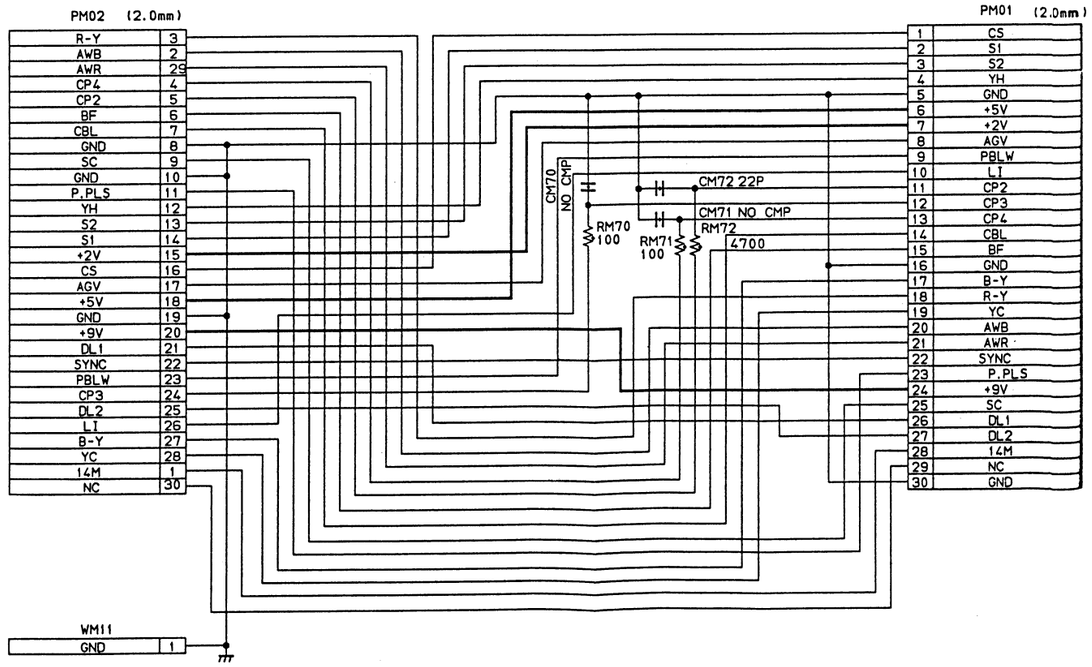
1-8. D-sub Connector Circuit Diagram



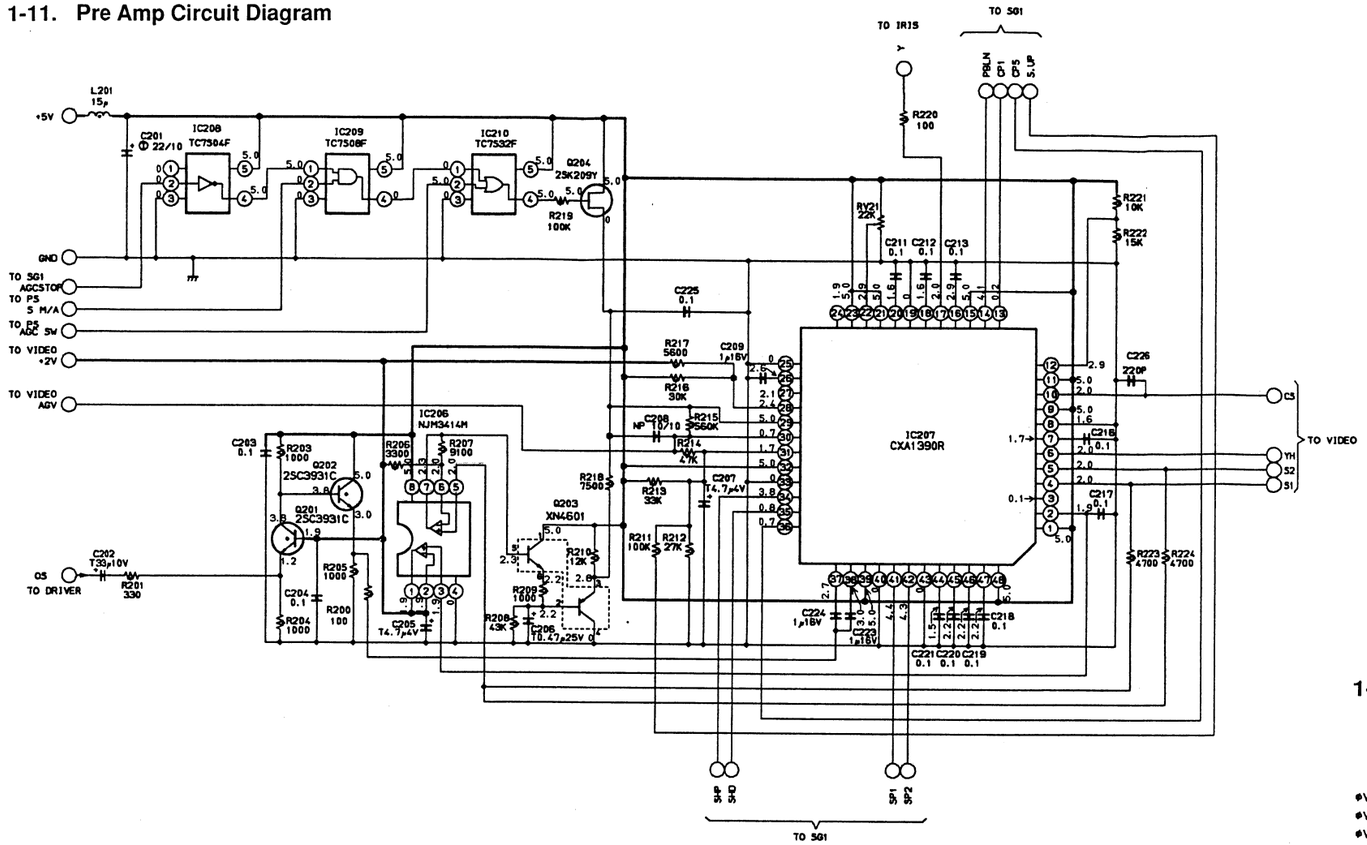
1-9. Head Circuit Diagram

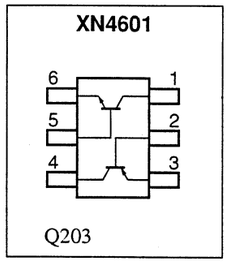


1-10. Mother Circuit Diagram



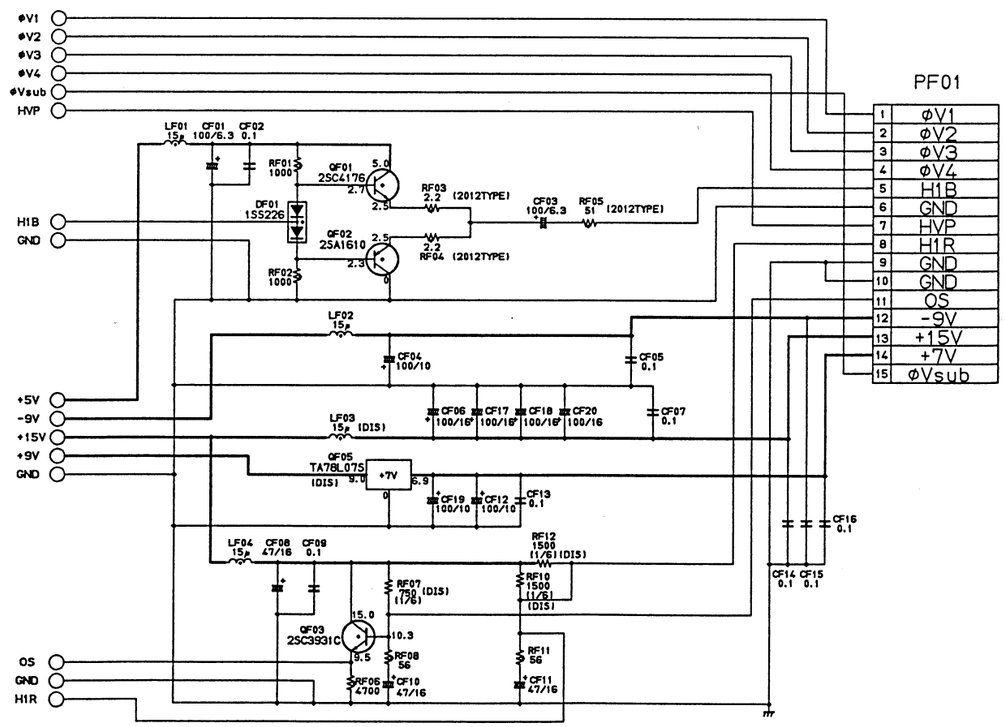
1-11. Pre Amp Circuit Diagram



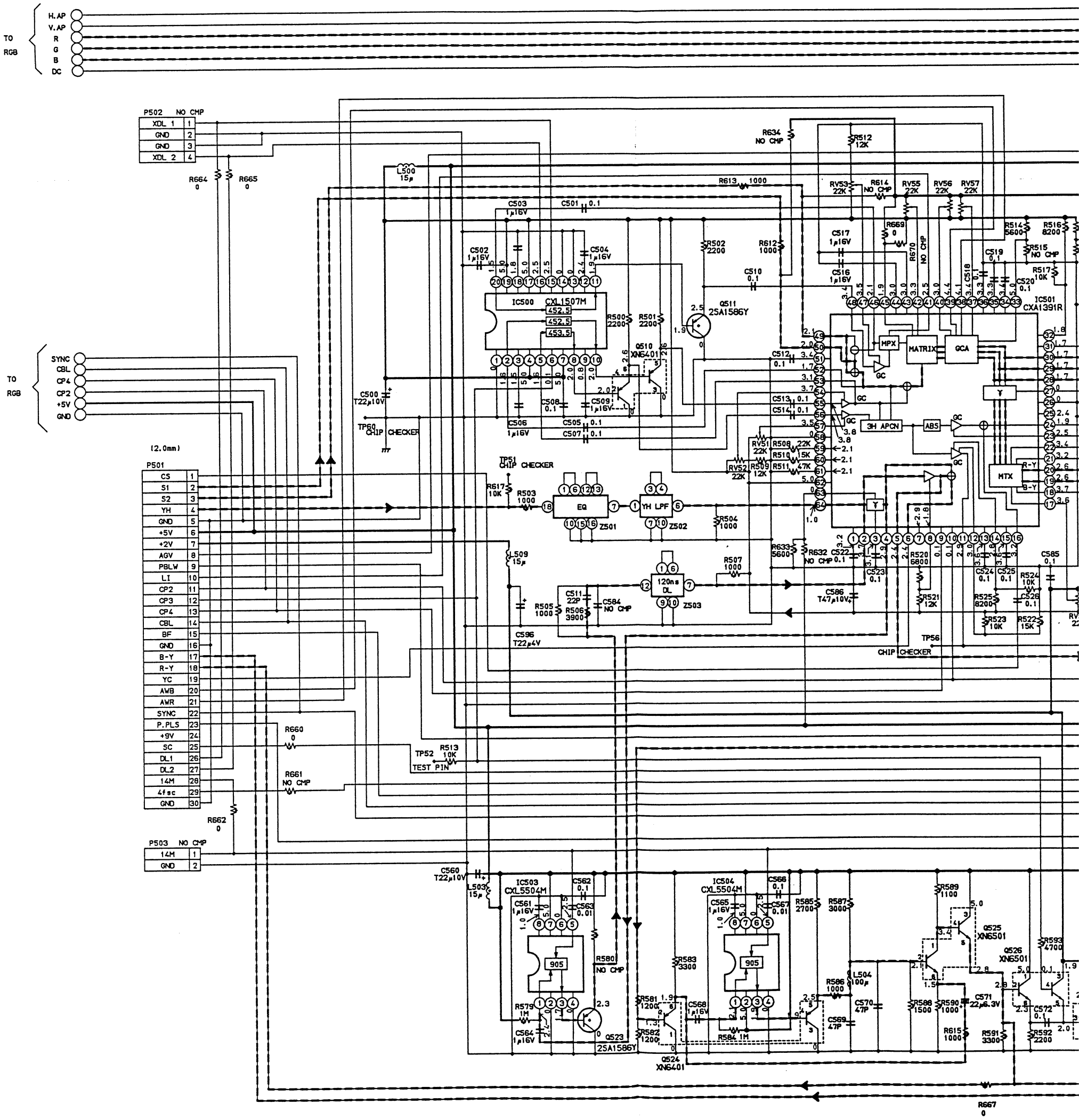


1-12. Driver Circuit Diagram

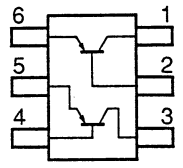
TO MAIN



1-13. Video Circuit Diagram

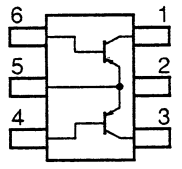


XN6401



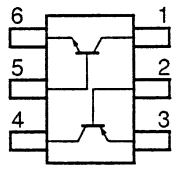
Q510, Q524,
Q528

XN1401



Q527

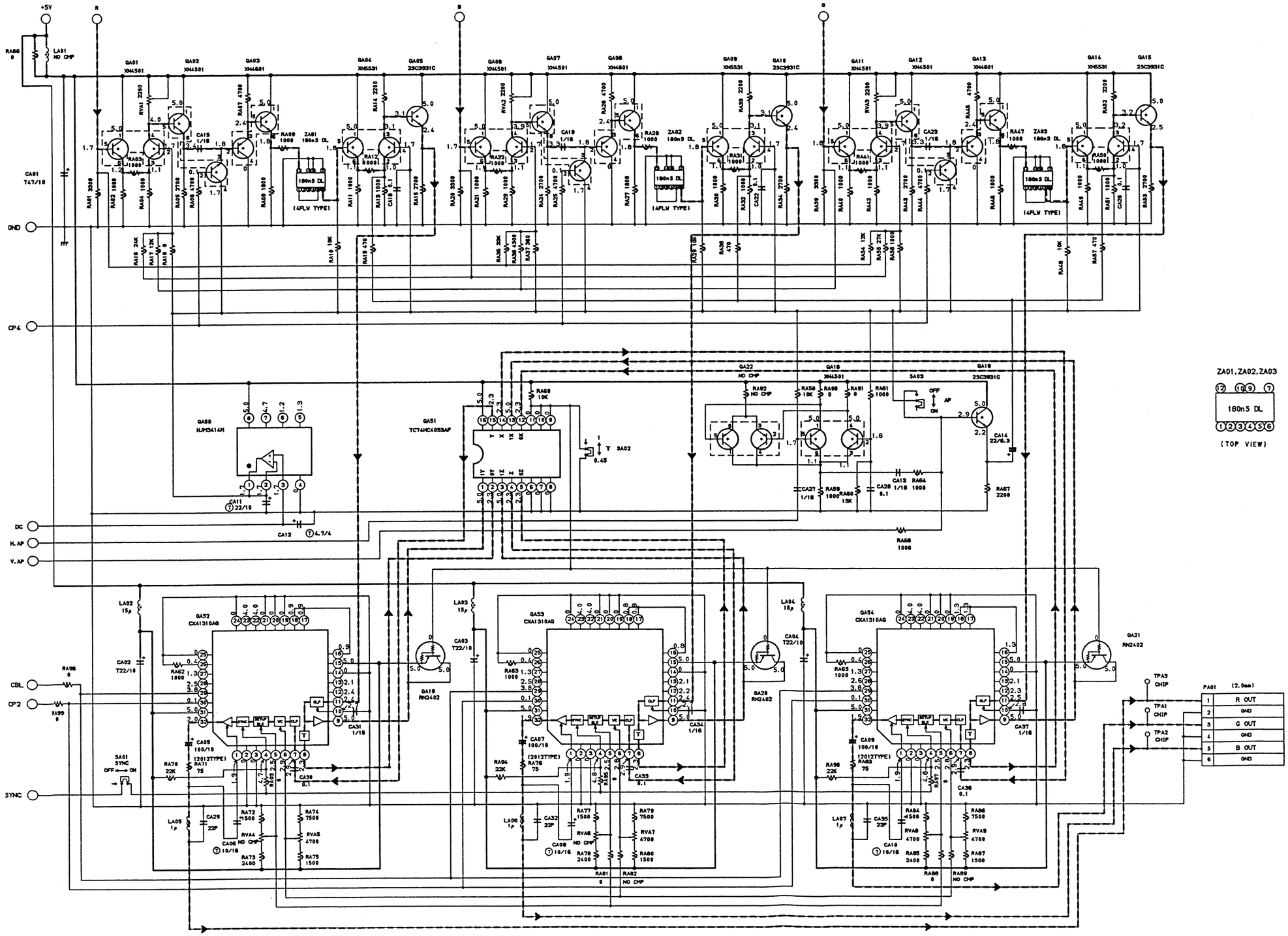
XN4601



Q530

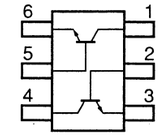
Video Circuit Diagram

1-14. R.G.B. Circuit Diagram



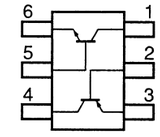
ZA01, ZA02, ZA03

XN4501



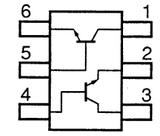
QA01, QA02, QA06, QA07, QA11, QA12

XN4601



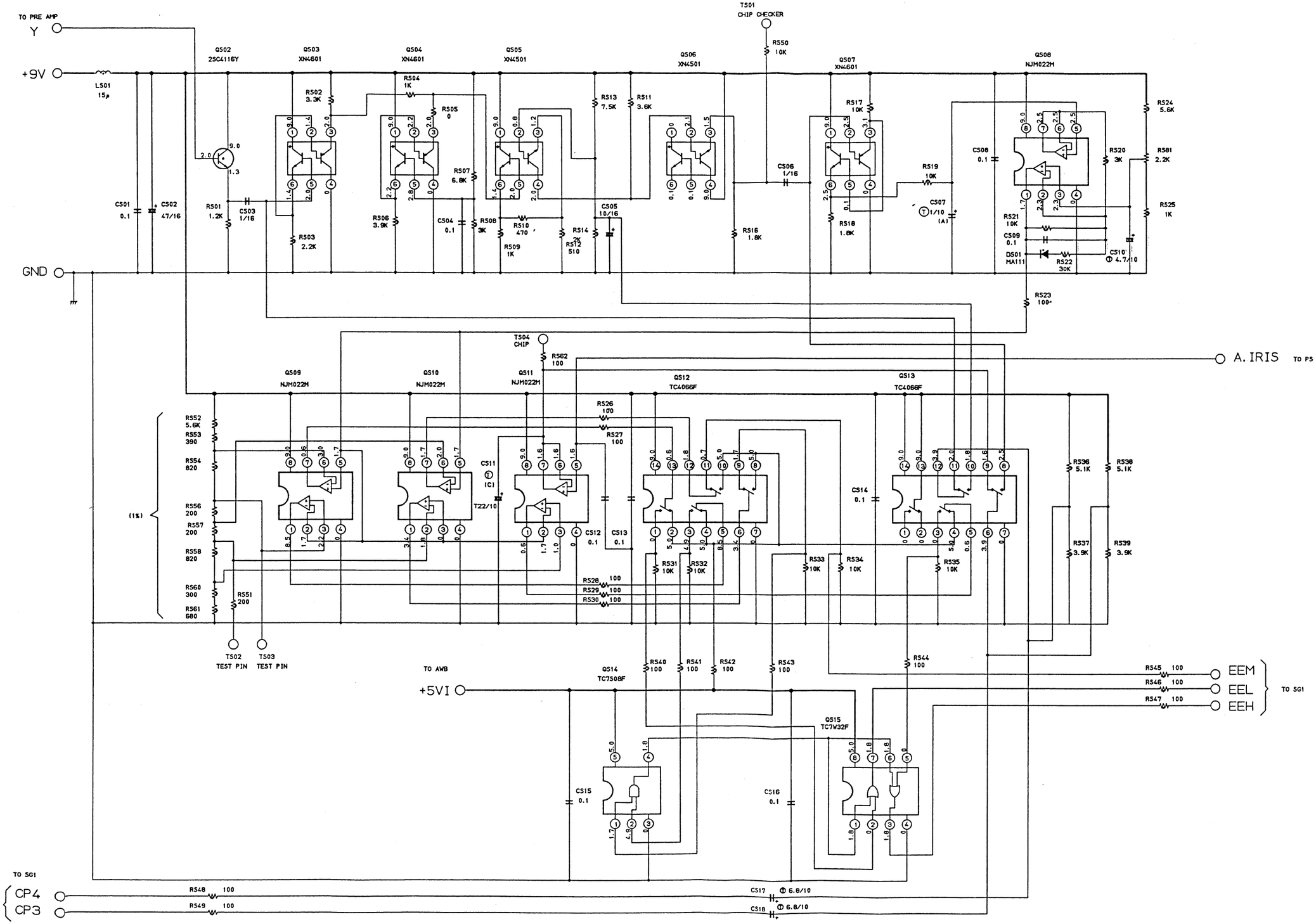
QA03, QA08, QA13

XN5531

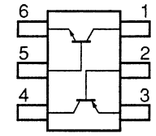


QA04, QA09, QA14

1-15. Iris Circuit Diagram

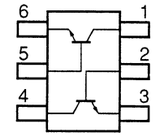


XN4601



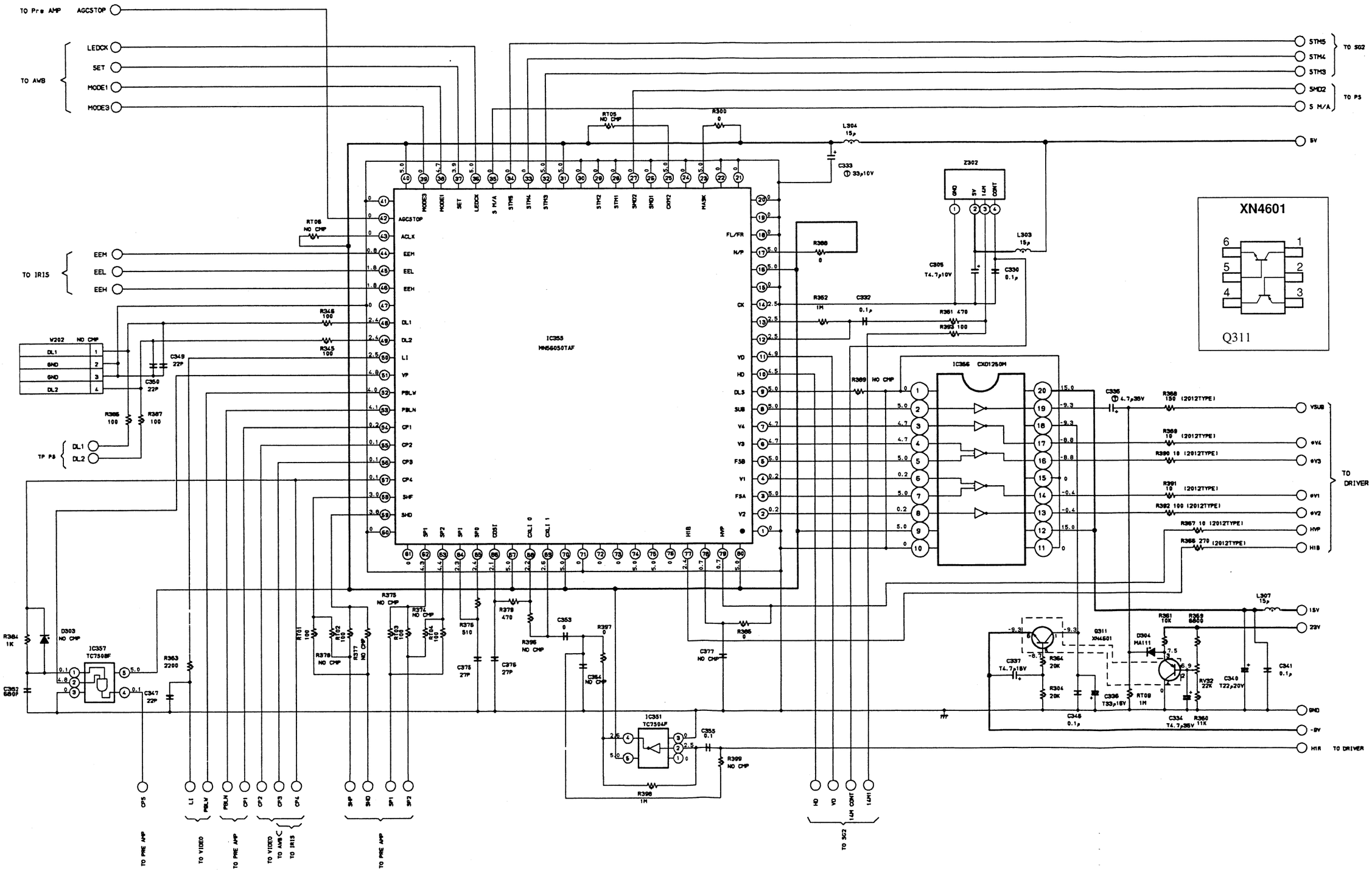
QS03, QS04, QS07

XN4501

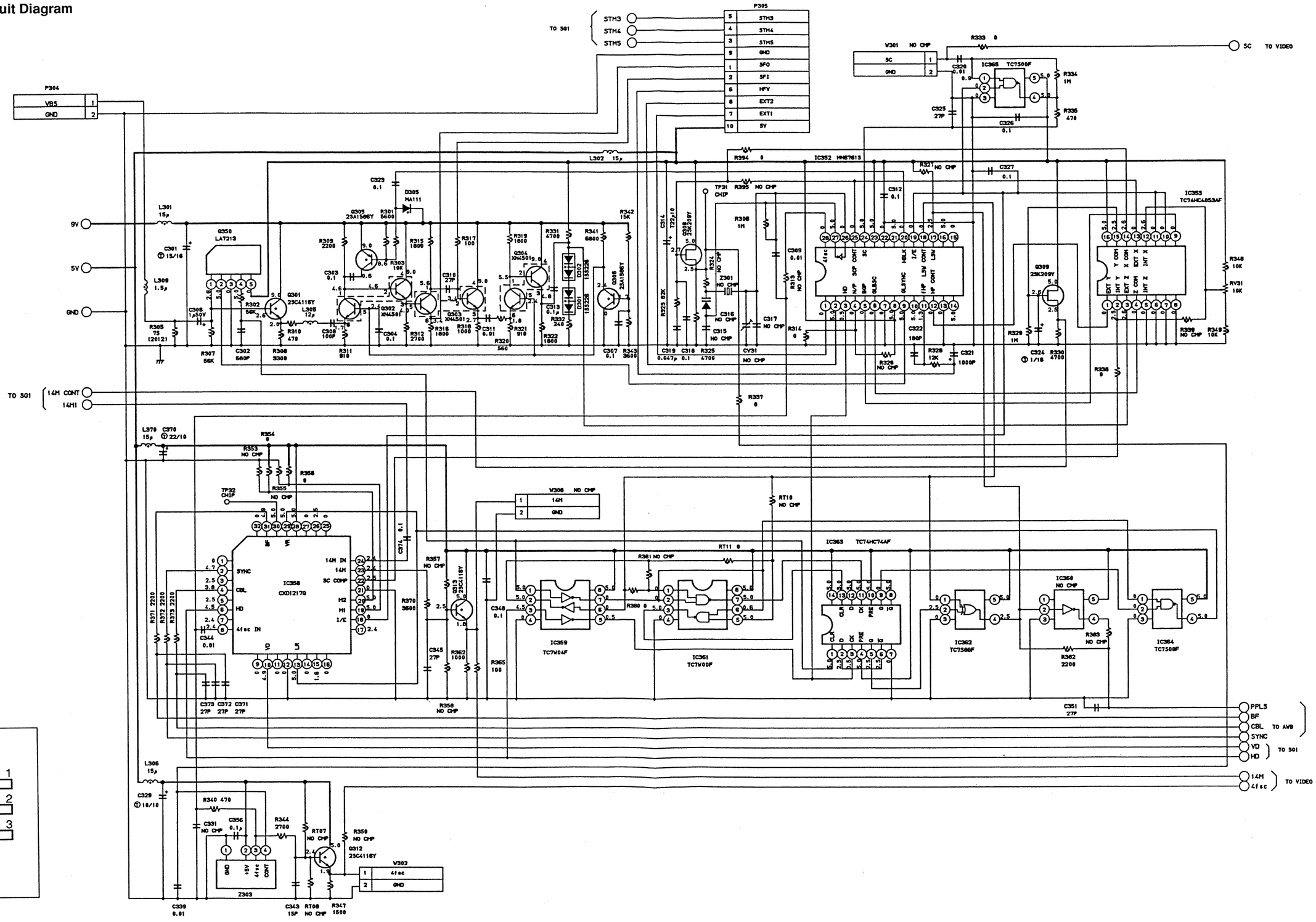


QS05, QS06

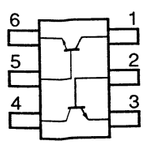
1-16. SG1 Circuit Diagram



1-17. SG2 Circuit Diagram

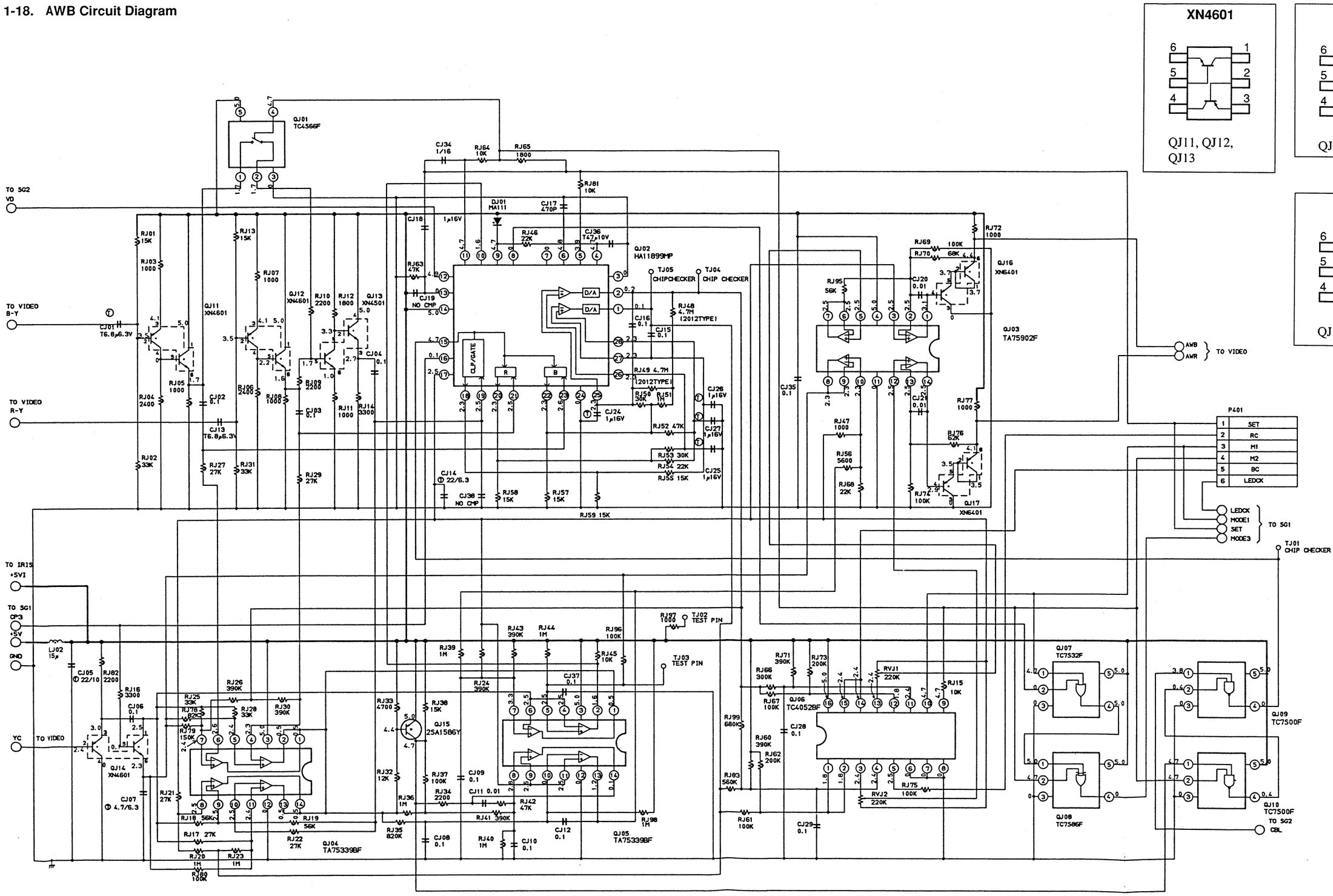


XN4501

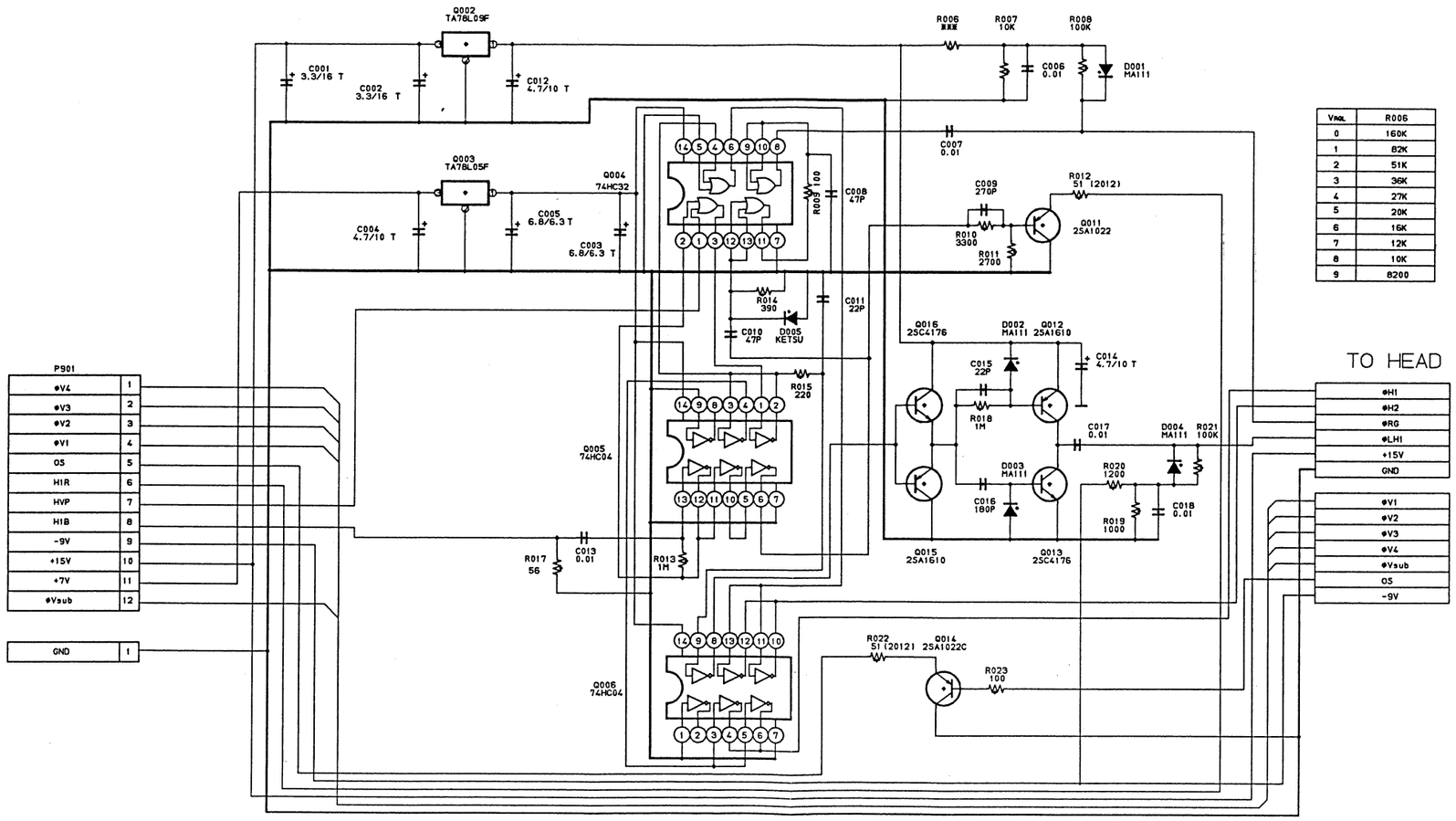


Q302, Q303,
Q304

1-18. AWB Circuit Diagram



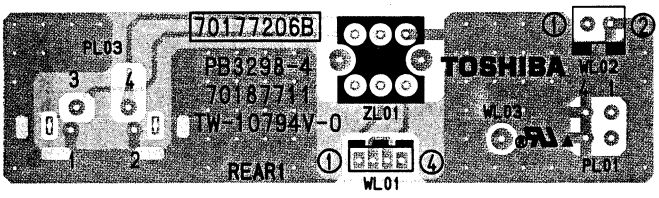
1-19. Head FPC Circuit Diagram



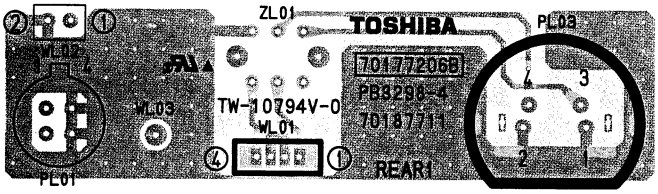
VADJ	R006
0	160K
1	82K
2	51K
3	36K
4	27K
5	20K
6	16K
7	12K
8	10K
9	8200

2. PRINTED CIRCUIT BOARD

2-1. Rear 1 PC Board

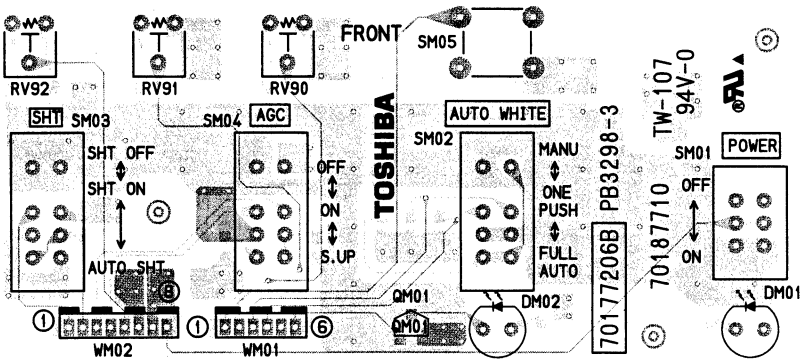


Rear 1 PC Board (Top Side)

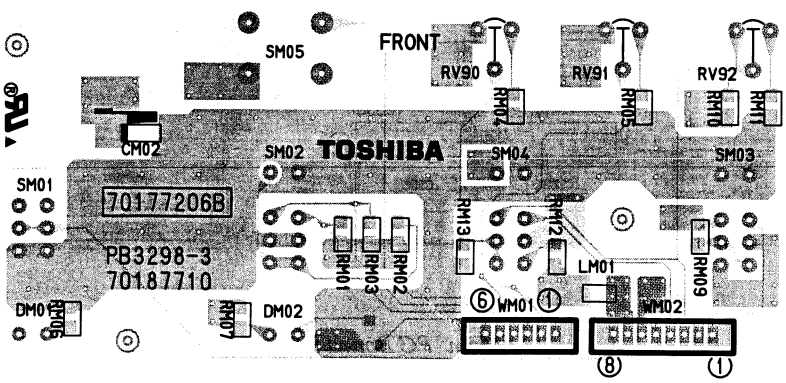


Rear 1 PC Board (Bottom Side)

2-2. Front PC Board

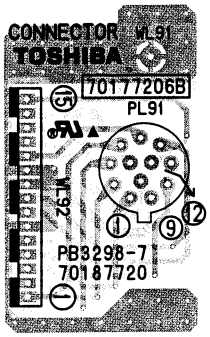


Front PC Board (Top Side)

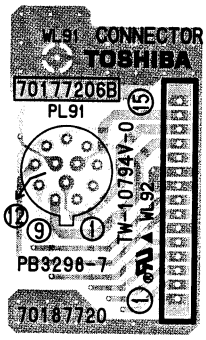


Front PC Board (Bottom Side)

2-3. Connector PC Board

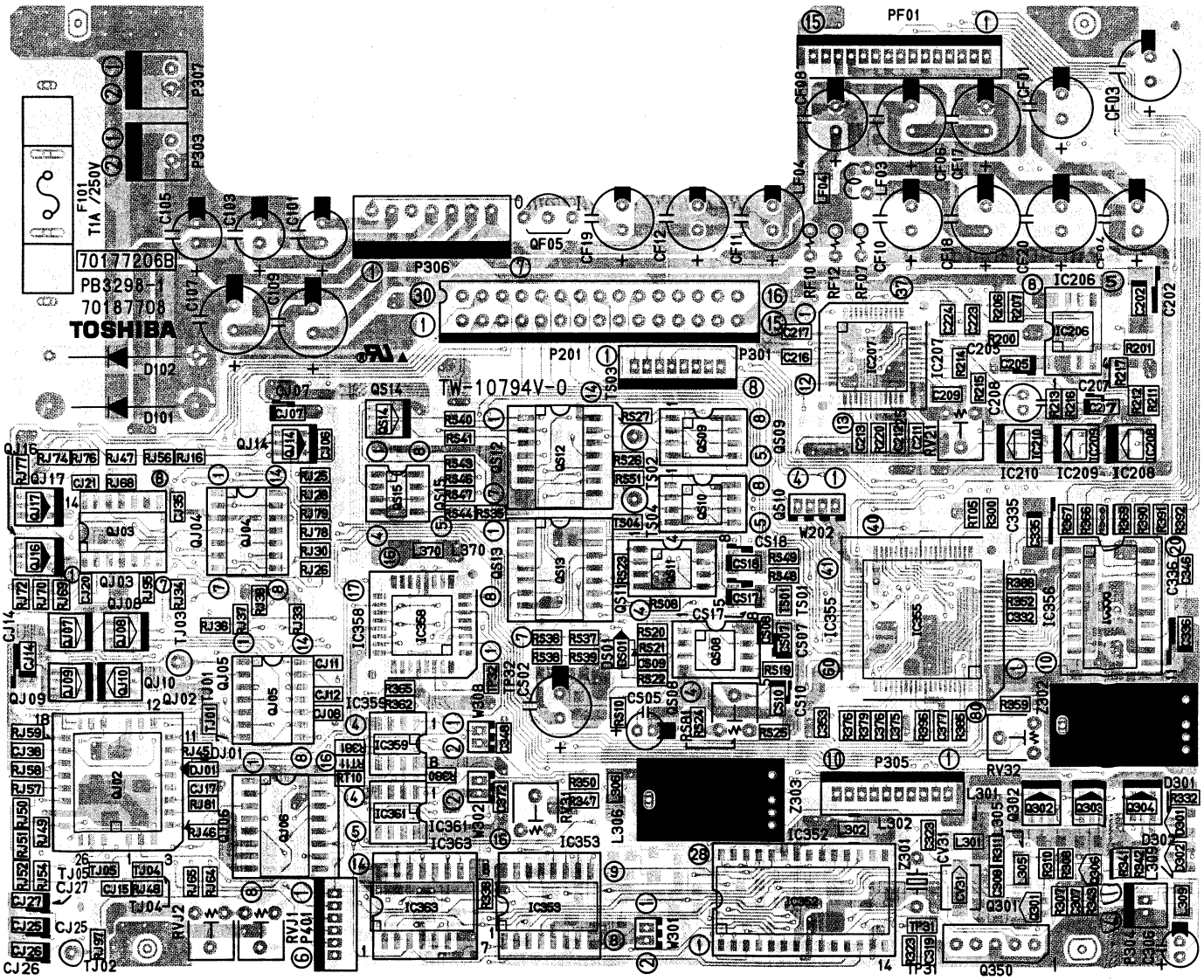


Connector PC Board (Top Side)

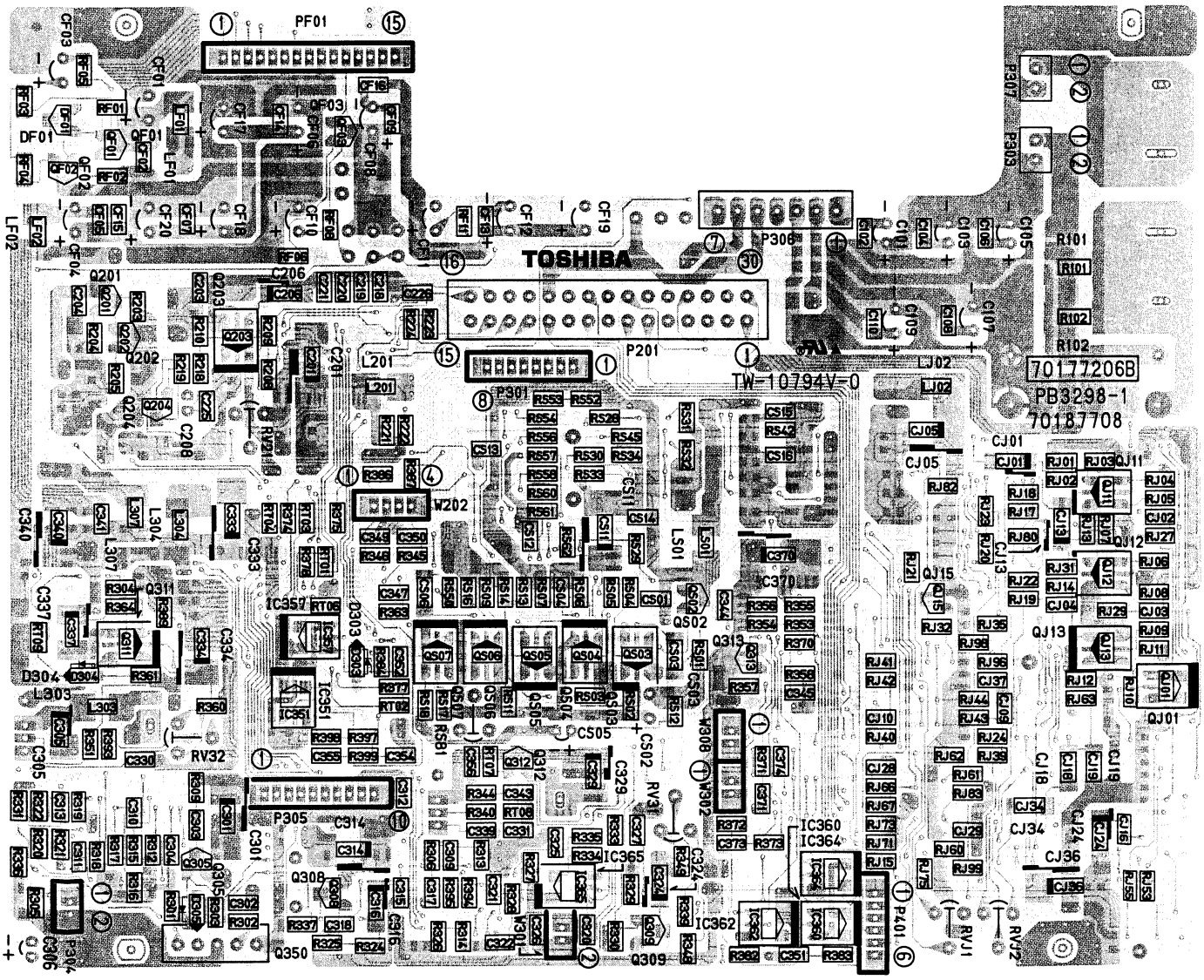


Connector PC Board (Bottom Side)

2-4. Main PC Board

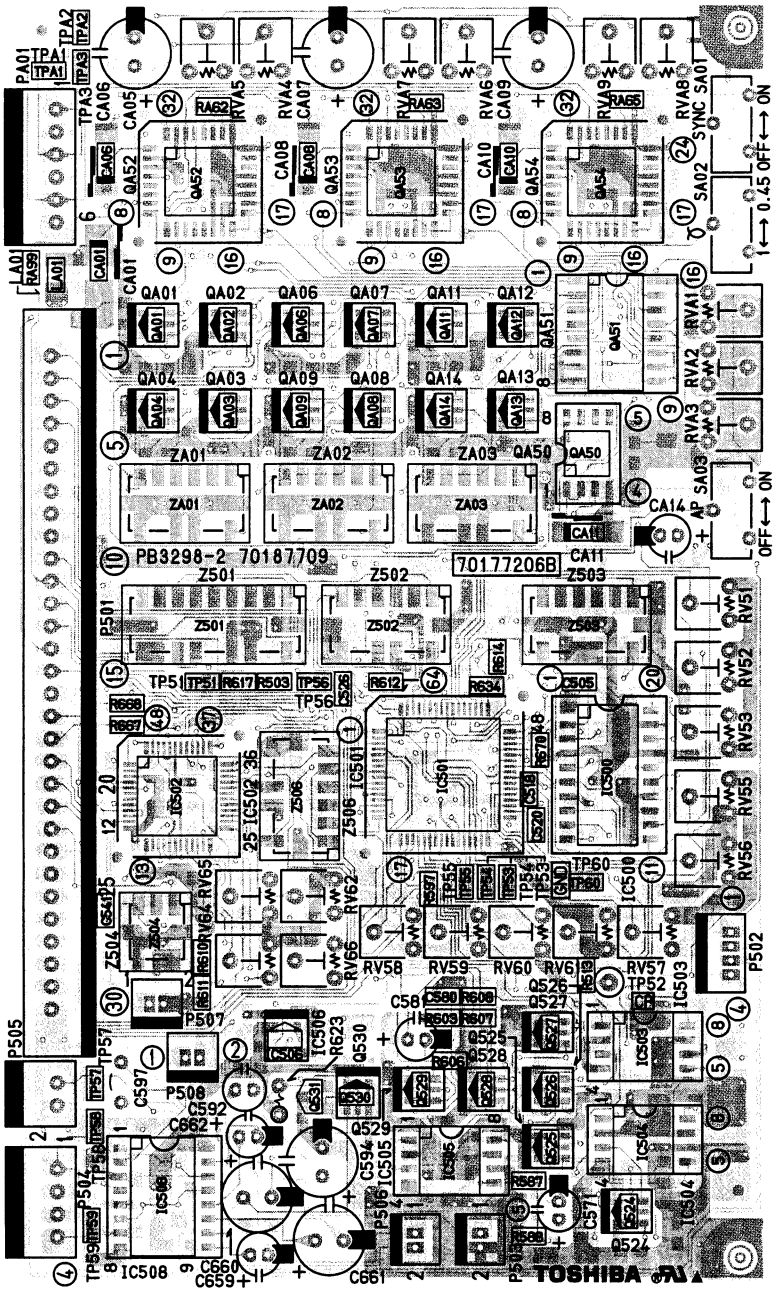


Main PC Board (Top Side)

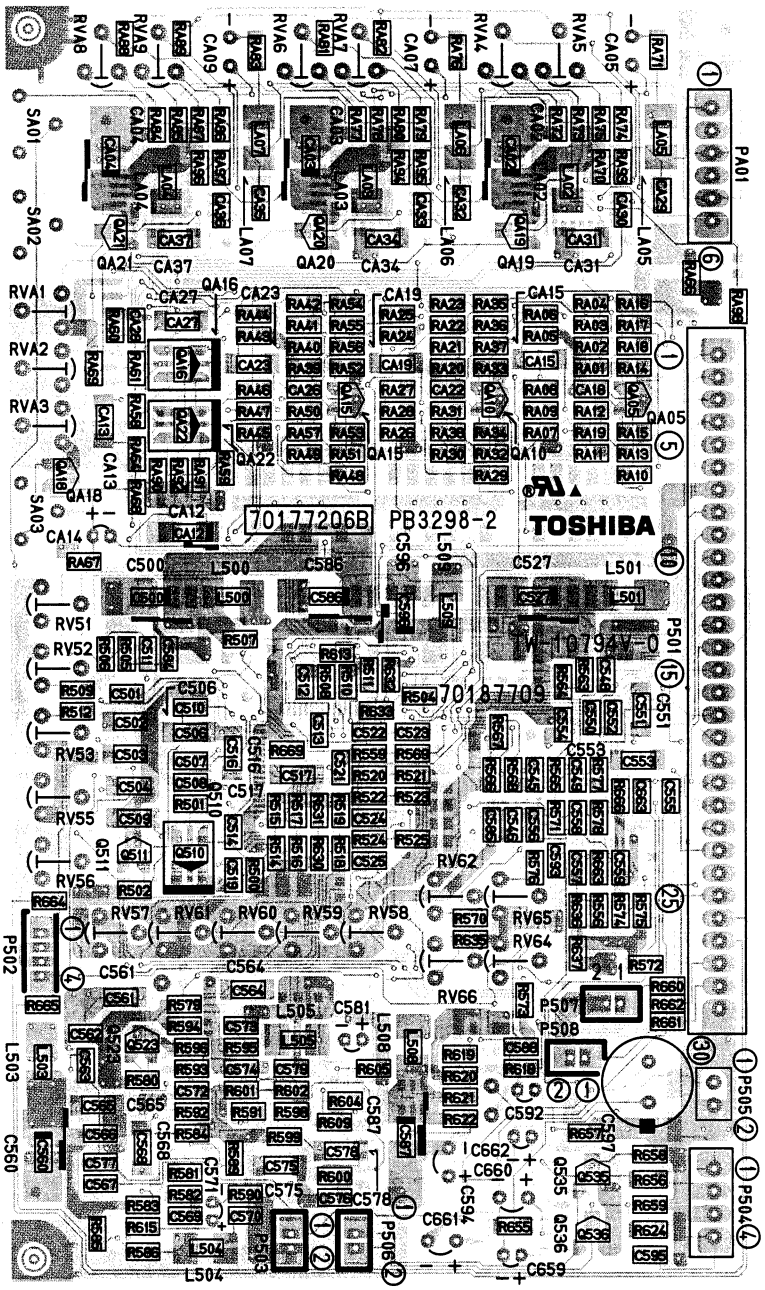


Main PC Board (Bottom Side)

2-5. Video PC Board

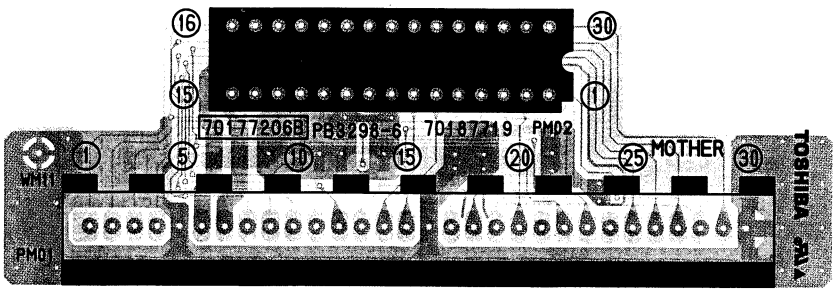


Video PC Board (Top Side)

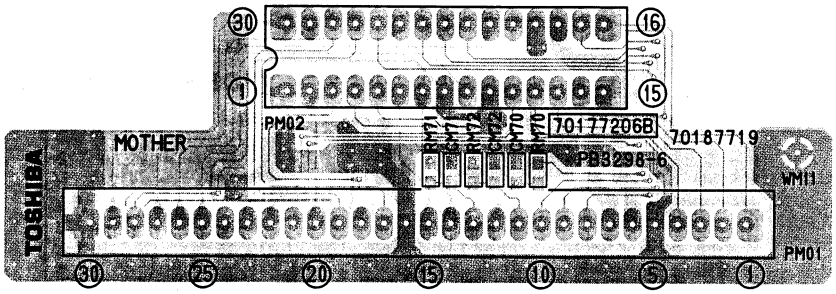


Video PC Board (Bottom Side)

2-6. Mother PC Board

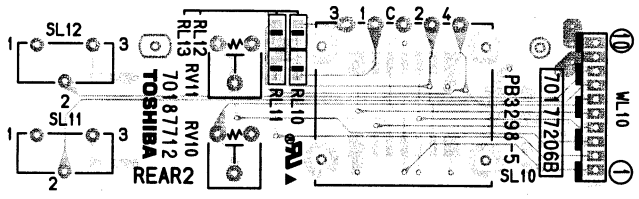


Mother PC Board (Top Side)

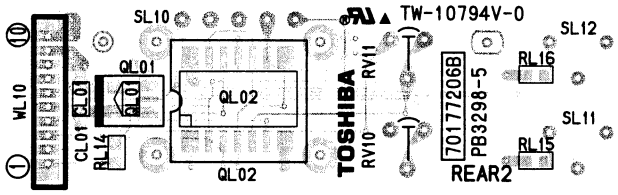


Mother PC Board (Bottom Side)

2-7. Rear 2 PC Board

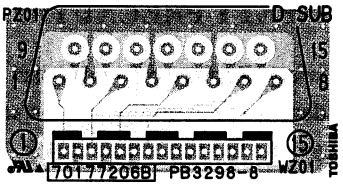


Rear 2 PC Board (Top Side)



Rear 2 PC Board (Bottom Side)

2-8. D-SUB PC Board



D-SUB PC Board (Top Side)

D-SUB PC Board (Bottom Side)

SECTION 4
EXPLODED VIEWS AND PARTS LIST

SAFETY PRECAUTION

The parts identified by ⚠ mark are critical for safety. Replace only with part number specified.
The mounting position of replacement is to be identical with originals. The substitute replacement parts which do not have the same safety characteristics as specified in the parts list may create shock, fire or other hazards.

NOTICE

The part number must be used when ordering parts in order to assist in processing, be sure to include the model number and description.
Parts marked # are of chip type and mounted on original PC boards.
However, when they are placed for servicing works, use discrete parts listed on the parts list.

ABBREVIATIONS

1. **Integrated circuit (IC)**
2. **Capacitor (Cap)**
   - **Unit** **Ex.**

     F.....farad
     MF.....microfarad ($\mu F = 10^{-6}F$) 10MF = 10μF
     PF.....picofarad ($pF = 10^{-6}\mu F = 10^{-12}F$) 10PF = 10pF
   - **Capacitance tolerance (for nominal capacitance higher than 10pF)**

Symbol	B	C	D	F	G	J	K	M	N
Tolerance %	± 0.1	± 0.25	± 0.5	± 1	± 2	± 5	± 10	± 20	± 30

Symbol	P	Q	T	U	V	W	X	Y	Z
Tolerance %	+ 100 0	+ 30 10	+ 50 10	+ 75 10	+ 20 10	+ 100 10	+ 40 20	+ 150 10	+ 80 20

Ex. 10MF J = 10μF ± 5%

   - **Capacitance tolerance (for nominal capacitance lower than 10pF)**

Symbol	B	C	D	F	G
Tolerance pF	± 0.1	± 0.25	± 0.5	± 1	± 2

Ex. 10PF G = 10pF ± 2pF

3. **Resistor (Res)**
   - **Unit** **Ex.**

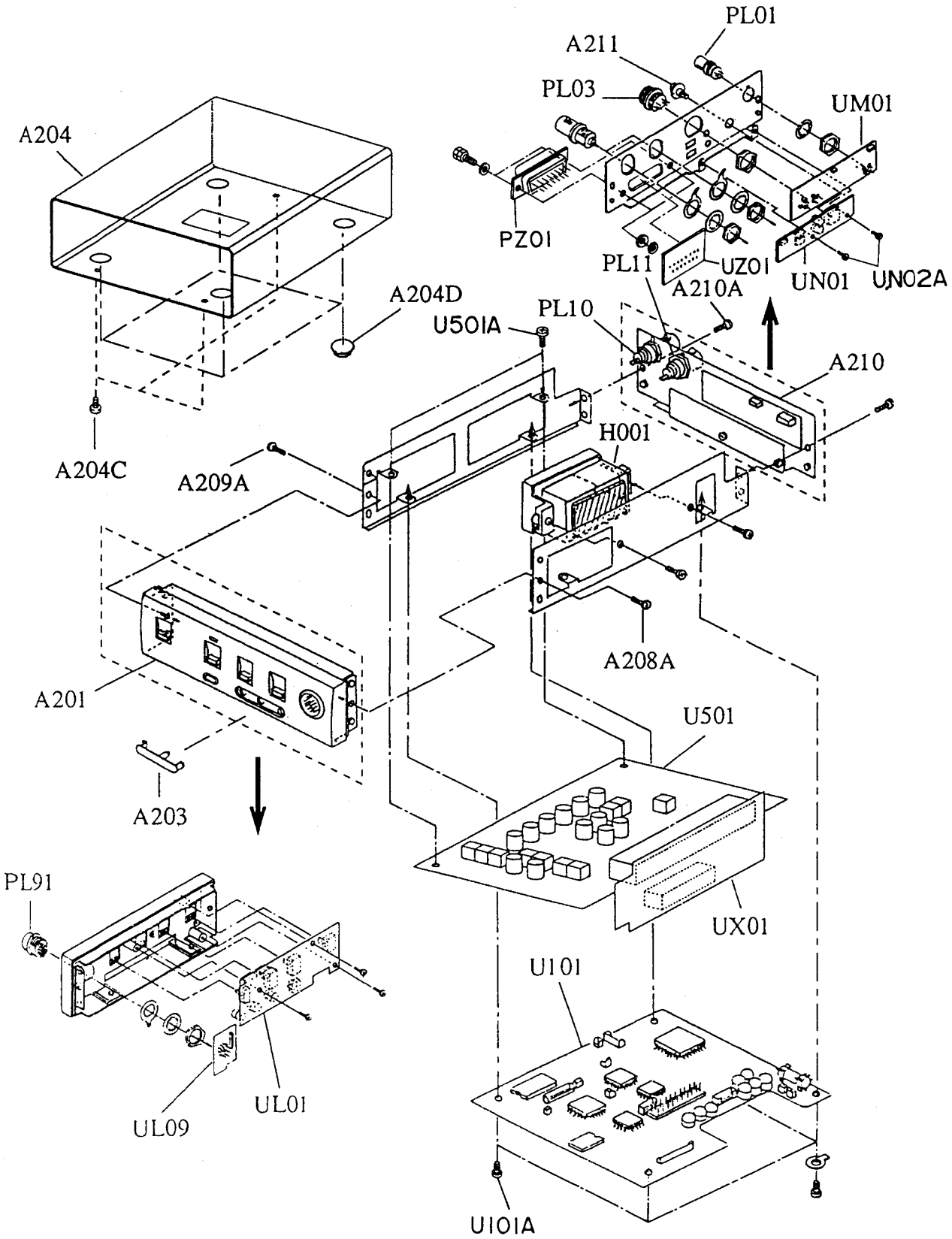
     No Mark.....Ω 10.....10Ω
     K.....kΩ 10K.....10kΩ
     M.....MΩ 10M.....10MΩ
     W.....Watt 1W.....1 Watt
   - **Resistance tolerance**

Symbol	B	C	D	F	G	J	K	M
Tolerance %	± 0.1	± 0.25	± 0.5	± 1	± 2	± 5	± 10	± 20

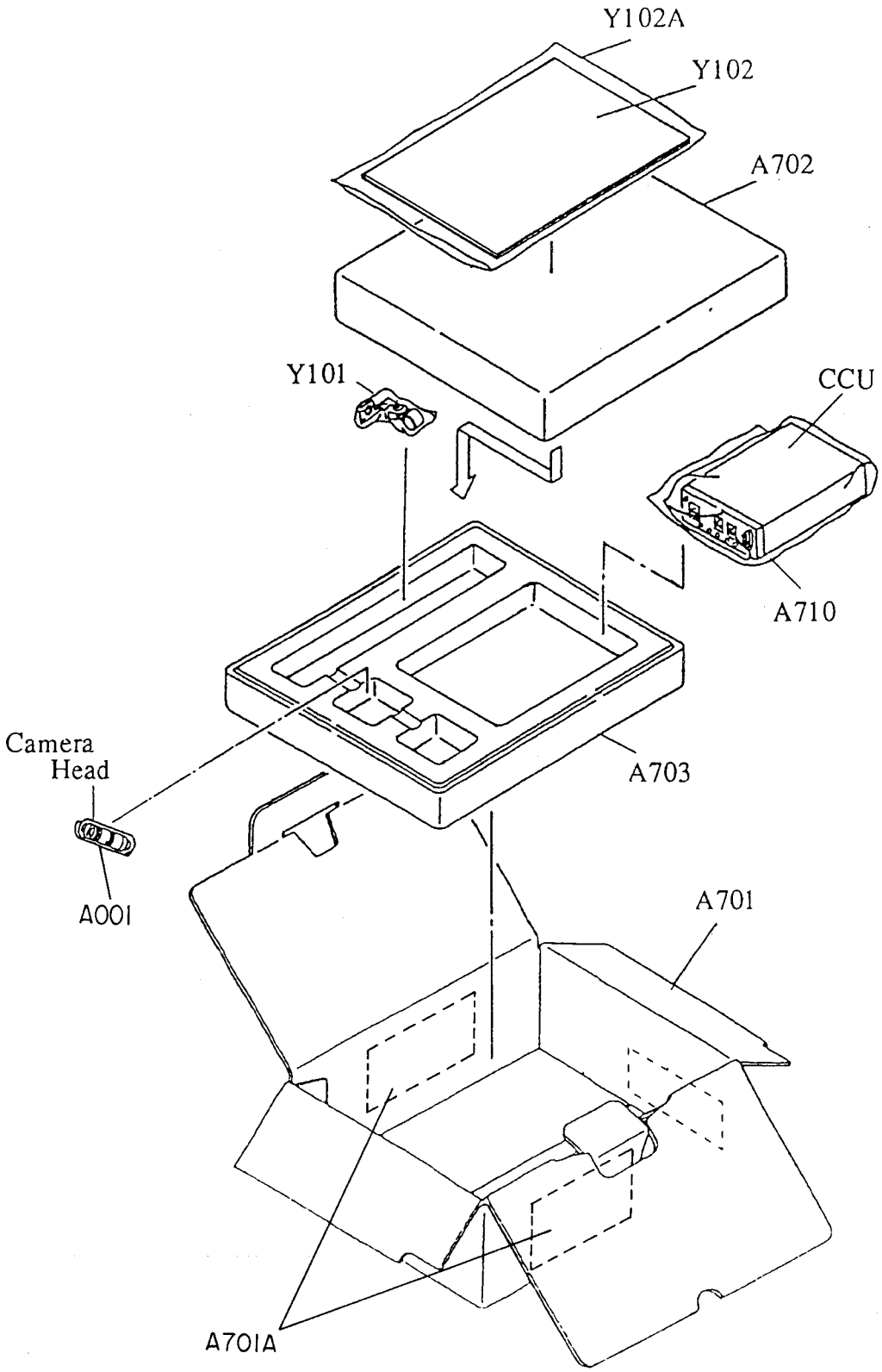
Ex. 470 J = 470Ω ± 5%

1. EXPLODED VIEWS

1-1. Unit Assembly



1-2. Packing Assembly



2. PARTS LIST

LOCATION NUMBER	PART NUMBER	DESCRIPTION	
		- ELECTRICAL PARTS -	
		- MISCELLANEOUS -	
H001	70137239	DC-DC Converter	
■ U101	70187708	P C Board Assy,MAIN	
		- INTEGRATED CIRCUITS -	
IC206	70119259	IC	NJM3414M
IC207	70128485	IC	CXA1390R
IC208	A6030620	IC	TC7S04F
IC209	A6030630	IC	TC7S08F
IC210	A6030640	IC	TC7S32F
IC350	23319021	IC	LA7213
IC351	A6030620	IC	TC7S04F
IC352	70119815	IC	MN6761S
IC353	B0487597	IC	TC74HC4053AF
IC355	70129158	IC	MN56050TAF
IC356	70128296	IC	CXD1250M
IC357	A6030630	IC	TC7S08F
IC358	70129160	IC	CXD1217Q
IC359	A6030871	IC	TC7W04F
IC361	A6030857	IC	TC7W00F
IC362	A6030685	IC	TC7S86F
IC363	B0485997	IC	TC74HC74AF
IC364	A6030600	IC	TC7S00F
IC365	A6030600	IC	TC7S00F
ICF05	B0370050	IC	TA78L07S
ICJ01	A6030110	IC	TC4S66F
ICJ02	70128708	IC	HA11899MP
ICJ03	B0351515	IC	TA75902F
ICJ04	B0347240	IC	TA75339F
ICJ05	B0347240	IC	TA75339F
ICJ06	B0470524	IC	TC4052BF
ICJ07	A6030640	IC	TC7S32F
ICJ08	A6030685	IC	TC7S86F
ICJ09	A6030600	IC	TC7S00F
ICJ10	A6030600	IC	TC7S00F
ICS08	70129338	IC	NJM022M
ICS09	70129338	IC	NJM022M
ICS10	70129338	IC	NJM022M
ICS11	70129338	IC	NJM022M
ICS12	B0470664	IC	TC4066BF
ICS13	B0470664	IC	TC4066BF
ICS14	A6030630	IC	TC7S08F
ICS15	A6030892	IC	TC7W32F
		- TRANSISTORS -	
Q201	23314507	Transistor,Chip	2SC3931-C
Q202	23314507	Transistor,Chip	2SC3931-C
Q203	23314315	Transistor,Chip	XN4601
Q204	A6043330	Transistor,Chip	2SK209-Y
Q301	A6365620	Transistor,Chip	2SC4116-Y
Q302	23314314	Transistor,Chip	XN4501
Q303	23314314	Transistor,Chip	XN4501
Q304	23314314	Transistor,Chip	XN4501
Q305	A6549570	Transistor,Chip	2SA1586-Y
Q306	A6549570	Transistor,Chip	2SA1586-Y
Q308	A6043330	Transistor,Chip	2SK209-Y
Q309	A6043330	Transistor,Chip	2SK209-Y
Q311	23314315	Transistor,Chip	XN4601
Q312	A6365620	Transistor,Chip	2SC4116-Y
Q313	A6365620	Transistor,Chip	2SC4116-Y
QF01	23314562	Transistor,Chip	2SC4176
QF02	23314558	Transistor,Chip	2SA1610
QF03	23314507	Transistor,Chip	2SC3931-C
QJ11	23314315	Transistor,Chip	XN4601
QJ12	23314315	Transistor,Chip	XN4601
QJ13	23314314	Transistor,Chip	XN4501
QJ14	23314315	Transistor,Chip	XN4601
QJ15	A6549570	Transistor,Chip	2SA1586-Y
QJ16	23314350	Transistor,Chip	XN6401
QJ17	23314350	Transistor,Chip	XN6401
QS02	A6365620	Transistor,Chip	2SC4116-Y
QS03	23314315	Transistor,Chip	XN4601
QS04	23314315	Transistor,Chip	XN4601
QS05	23314314	Transistor,Chip	XN4501
QS06	23314314	Transistor,Chip	XN4501
QS07	23314315	Transistor,Chip	XN4601
		- DIODES -	
⚠ D101	A7580310	Diode	3BZ61
⚠ D102	A7111123	Diode	2Z20
D302	A7152750	Diode,Chip	1SS226
D304	23118041	Diode,Chip	MA111
D305	23118041	Diode,Chip	MA111
DF01	A7152750	Diode,Chip	1SS226
DJ01	23118041	Diode,Chip	MA111
DS01	23118041	Diode,Chip	MA111
		- COILS -	
L201	23245859	Coil,Chip	TRF4150CC
L301	23245859	Coil,Chip	TRF4150CC
L302	23245859	Coil,Chip	TRF4150CC
L303	23245859	Coil,Chip	TRF4150CC
L304	23245859	Coil,Chip	TRF4150CC
L305	23245710	Coil,Chip	TRF41R0C
L306	23245859	Coil,Chip	TRF4150CC
L307	23245859	Coil,Chip	TRF4150CC
L309	23245853	Coil,Chip	TRF41R5CC
L370	23245859	Coil,Chip	TRF4150CC
LF01	23245859	Coil,Chip	TRF4150CC
LF02	23245859	Coil,Chip	TRF4150CC
LF03	23289150	Coil,Peaking	TRF4150AF
LF04	23245859	Coil,Chip	TRF4150CC
LJ02	23245859	Coil,Chip	TRF4150CC
LS01	23245859	Coil,Chip	TRF4150CC
		- CAPACITORS -	
C101	24743101	Cap,Electrolytic	100MF M 10V
C102	24100104	Cap,Chip	0.1MF Z 25V
C103	24742101	Cap,Electrolytic	100MF M 6.3V
C104	24100104	Cap,Chip	0.1MF Z 25V
C105	24743101	Cap,Electrolytic	100MF M 10V
C106	24100104	Cap,Chip	0.1MF Z 25V
C107	24744101	Cap,Electrolytic	100MF M 16V
C108	24100104	Cap,Chip	0.1MF Z 25V
C109	24745470	Cap,Electrolytic	47MF M 25V
C110	24100104	Cap,Chip	0.1MF Z 25V
C201	24088947	Cap,Chip,Tantalum	22MF M 10V
C202	24292336	Cap,Chip,Tantalum	33MF M 10V
C203	24100104	Cap,Chip	0.1MF Z 25V
C204	24100104	Cap,Chip	0.1MF Z 25V
C205	24290475	Cap,Chip,Tantalum	4.7MF M 4V
C206	24295474	Cap,Chip,Tantalum	0.47MF M 25V
C207	24290475	Cap,Chip,Tantalum	4.7MF M 4V
C208	24085986	Cap,Electrolytic	10MF M 10V
C209	24092291	Cap,Chip	1MF Z 16V
C211	24100104	Cap,Chip	0.1MF Z 25V
C212	24100104	Cap,Chip	0.1MF Z 25V
C213	24100104	Cap,Chip	0.1MF Z 25V
C216	24100104	Cap,Chip	0.1MF Z 25V
C217	24100104	Cap,Chip	0.1MF Z 25V
C218	24100104	Cap,Chip	0.1MF Z 25V
C219	24100104	Cap,Chip	0.1MF Z 25V
C220	24100104	Cap,Chip	0.1MF Z 25V
C221	24100104	Cap,Chip	0.1MF Z 25V
C223	24092291	Cap,Chip	1MF Z 16V
C224	24092291	Cap,Chip	1MF Z 16V
C225	24100104	Cap,Chip	0.1MF Z 25V
C226	24105221	Cap,Chip,Ceramic	220PF J 50V
C301	24088952	Cap,Chip,Tantalum	15MF M 16V
C302	24109681	Cap,Chip,Ceramic	680PF K 50V
C303	24100104	Cap,Chip	0.1MF Z 25V
C304	24100104	Cap,Chip	0.1MF Z 25V
C305	24088906	Cap,Chip,Tantalum	4.7MF M 10V
C306	24747109	Cap,Electrolytic	1MF M 50V
C307	24100104	Cap,Chip	0.1MF Z 25V
C308	24105101	Cap,Chip,Ceramic	100PF J 50V
C309	24109103	Cap,Chip,Ceramic	0.01MF K 25V
C310	24105270	Cap,Chip,Ceramic	27PF J 50V
C311	24109103	Cap,Chip,Ceramic	0.01MF K 25V
C312	24100104	Cap,Chip	0.1MF Z 25V
C313	24100104	Cap,Chip	0.1MF Z 25V

LOCATION NUMBER	PART NUMBER	DESCRIPTION		
C314	24088947	Cap,Chip,Tantalum	22MF	M 10V
C318	24100104	Cap,Chip	0.1MF	Z 25V
C319	24100473	Cap,Chip	0.047MF	Z 25V
C320	24109103	Cap,Chip,Ceramic	0.01MF	K 25V
C321	24109102	Cap,Chip,Ceramic	1000PF	K 50V
C322	24105181	Cap,Chip,Ceramic	180PF	J 50V
C323	24100104	Cap,Chip	0.1MF	Z 25V
C324	24293105	Cap,Chip,Tantalum	1MF	M 16V
C325	24105270	Cap,Chip,Ceramic	27PF	J 50V
C326	24100104	Cap,Chip	0.1MF	Z 25V
C327	24100104	Cap,Chip	0.1MF	Z 25V
C329	24088946	Cap,Chip,Tantalum	10MF	M 10V
C330	24100104	Cap,Chip	0.1MF	Z 25V
C332	24100104	Cap,Chip	0.1MF	Z 25V
C333	24292336	Cap,Chip,Tantalum	33MF	M 10V
C334	24296475	Cap,Chip,Tantalum	4.7MF	M 35V
C335	24296475	Cap,Chip,Tantalum	4.7MF	M 35V
C336	24088953	Cap,Chip,Tantalum	33MF	M 16V
C337	24088950	Cap,Chip,Tantalum	4.7MF	M 16V
C339	24109103	Cap,Chip,Ceramic	0.01MF	K 25V
C340	24088978	Cap,Chip,Tantalum	22MF	M 20V
C341	24100104	Cap,Chip	0.1MF	Z 25V
C343	24105150	Cap,Chip,Ceramic	15PF	J 50V
C344	24109103	Cap,Chip,Ceramic	0.01MF	K 25V
C345	24105270	Cap,Chip,Ceramic	27PF	J 50V
C346	24100104	Cap,Chip	0.1MF	Z 25V
C347	24105220	Cap,Chip,Ceramic	22PF	J 50V
C348	24100104	Cap,Chip	0.1MF	Z 25V
C349	24105220	Cap,Chip,Ceramic	22PF	J 50V
C350	24105220	Cap,Chip,Ceramic	22PF	J 50V
C351	24105270	Cap,Chip,Ceramic	27PF	J 50V
C352	24109681	Cap,Chip,Ceramic	680PF	K 50V
C353	24000445	Res,Chip Jumper	0	
C355	24100104	Cap,Chip	0.1MF	Z 25V
C356	24100104	Cap,Chip	0.1MF	Z 25V
C370	24088947	Cap,Chip,Tantalum	22MF	M 10V
C371	24105270	Cap,Chip,Ceramic	27PF	J 50V
C372	24105270	Cap,Chip,Ceramic	27PF	J 50V
C373	24105270	Cap,Chip,Ceramic	27PF	J 50V
C374	24100104	Cap,Chip	0.1MF	Z 25V
C375	24105270	Cap,Chip,Ceramic	27PF	J 50V
C376	24105270	Cap,Chip,Ceramic	27PF	J 50V
CF01	24742101	Cap,Electrolytic	100MF	M 6.3V
CF02	24100104	Cap,Chip	0.1MF	Z 25V
CF03	24742101	Cap,Electrolytic	100MF	M 6.3V
CF04	24743101	Cap,Electrolytic	100MF	M 10V
CF05	24100104	Cap,Chip	0.1MF	Z 25V
CF06	24744101	Cap,Electrolytic	100MF	M 16V
CF07	24100104	Cap,Chip	0.1MF	Z 25V
CF08	24744470	Cap,Electrolytic	47MF	M 16V
CF09	24100104	Cap,Chip	0.1MF	Z 25V
CF10	24744470	Cap,Electrolytic	47MF	M 16V
CF11	24744470	Cap,Electrolytic	47MF	M 16V
CF12	24743101	Cap,Electrolytic	100MF	M 10V
CF13	24100104	Cap,Chip	0.1MF	Z 25V
CF14	24100104	Cap,Chip	0.1MF	Z 25V
CF15	24100104	Cap,Chip	0.1MF	Z 25V
CF16	24100104	Cap,Chip	0.1MF	Z 25V
CF17	24744101	Cap,Electrolytic	100MF	M 16V
CF18	24744101	Cap,Electrolytic	100MF	M 16V
CF19	24743101	Cap,Electrolytic	100MF	M 10V
CF20	24744101	Cap,Electrolytic	100MF	M 16V
CJ01	24088905	Cap,Chip,Tantalum	6.8MF	M 6.3V
CJ02	24100104	Cap,Chip	0.1MF	Z 25V
CJ03	24100104	Cap,Chip	0.1MF	Z 25V
CJ04	24100104	Cap,Chip	0.1MF	Z 25V
CJ05	24088947	Cap,Chip,Tantalum	22MF	M 10V
CJ06	24100104	Cap,Chip	0.1MF	Z 25V
CJ07	24088971	Cap,Chip,Tantalum	4.7MF	M 6.3V
CJ08	24100104	Cap,Chip	0.1MF	Z 25V
CJ09	24100104	Cap,Chip	0.1MF	Z 25V
CJ10	24100104	Cap,Chip	0.1MF	Z 25V
CJ11	24109103	Cap,Chip,Ceramic	0.01MF	K 25V
CJ12	24100104	Cap,Chip	0.1MF	Z 25V
CJ13	24088905	Cap,Chip,Tantalum	6.8MF	M 6.3V

LOCATION NUMBER	PART NUMBER	DESCRIPTION		
CJ14	24291226	Cap,Chip,Tantalum	22MF	M 6.3V
CJ15	24100104	Cap,Chip	0.1MF	Z 25V
CJ16	24100104	Cap,Chip	0.1MF	Z 25V
CJ17	24109471	Cap,Chip,Ceramic	470PF	K 50V
CJ18	24092291	Cap,Chip	1MF	Z 16V
CJ20	24109103	Cap,Chip,Ceramic	0.01MF	K 25V
CJ21	24109103	Cap,Chip,Ceramic	0.01MF	K 25V
CJ24	24293105	Cap,Chip,Tantalum	1MF	M 16V
CJ25	24293105	Cap,Chip,Tantalum	1MF	M 16V
CJ26	24293105	Cap,Chip,Tantalum	1MF	M 16V
CJ27	24293105	Cap,Chip,Tantalum	1MF	M 16V
CJ28	24100104	Cap,Chip	0.1MF	Z 25V
CJ29	24100104	Cap,Chip	0.1MF	Z 25V
CJ34	24092291	Cap,Chip	1MF	Z 16V
CJ35	24100104	Cap,Chip	0.1MF	Z 25V
CJ36	24088948	Cap,Chip,Tantalum	47MF	M 10V
CJ37	24100104	Cap,Chip	0.1MF	Z 25V
CS01	24100104	Cap,Chip	0.1MF	Z 25V
CS02	24744470	Cap,Electrolytic	47MF	M 16V
CS03	24092291	Cap,Chip	1MF	Z 16V
CS04	24100104	Cap,Chip	0.1MF	Z 25V
CS05	24744100	Cap,Electrolytic	10MF	M 16V
CS06	24092291	Cap,Chip	1MF	Z 16V
CS07	24292105	Cap,Chip,Tantalum	1MF	M 10V
CS08	24100104	Cap,Chip	0.1MF	Z 25V
CS09	24100104	Cap,Chip	0.1MF	Z 25V
CS10	24088906	Cap,Chip,Tantalum	4.7MF	M 10V
CS11	24088947	Cap,Chip,Tantalum	22MF	M 10V
CS12	24100104	Cap,Chip	0.1MF	Z 25V
CS13	24100104	Cap,Chip	0.1MF	Z 25V
CS14	24100104	Cap,Chip	0.1MF	Z 25V
CS15	24100104	Cap,Chip	0.1MF	Z 25V
CS16	24100104	Cap,Chip	0.1MF	Z 25V
CS17	24088945	Cap,Chip,Tantalum	6.8PF	M 10V
CS18	24088945	Cap,Chip,Tantalum	6.8PF	M 10V
		- RESISTORS -		
⚠ R101	24000488	Res,Chip	3.9	J 1/2W
⚠ R102	24000488	Res,Chip	3.9	J 1/2W
R200	24011101	Res,Chip	100	J 1/20W
R201	24011331	Res,Chip	330	J 1/20W
R203	24011102	Res,Chip	1K	J 1/20W
R204	24011102	Res,Chip	1K	J 1/20W
R205	24011102	Res,Chip	1K	J 1/20W
R206	24011332	Res,Chip	3.3K	J 1/20W
R207	24011912	Res,Chip	9.1K	J 1/20W
R208	24011433	Res,Chip	43K	J 1/20W
R209	24011102	Res,Chip	1K	J 1/20W
R210	24011123	Res,Chip	12K	J 1/20W
R211	24011104	Res,Chip	100K	J 1/20W
R212	24011273	Res,Chip	27K	J 1/20W
R213	24011333	Res,Chip	33K	J 1/20W
R214	24011473	Res,Chip	47K	J 1/20W
R215	24011564	Res,Chip	560K	J 1/20W
R216	24011303	Res,Chip	30K	J 1/20W
R217	24011562	Res,Chip	5.6K	J 1/20W
R218	24011752	Res,Chip	7.5K	J 1/20W
R219	24011104	Res,Chip	100K	J 1/20W
R220	24011101	Res,Chip	100	J 1/20W
R221	24011103	Res,Chip	10K	J 1/20W
R222	24011153	Res,Chip	15K	J 1/20W
R223	24011472	Res,Chip	4.7K	J 1/20W
R224	24011472	Res,Chip	4.7K	J 1/20W
R300	24000445	Res,Chip Jumper	0	
R301	24011562	Res,Chip	5.6K	J 1/20W
R302	24011563	Res,Chip	56K	J 1/20W
R303	24011103	Res,Chip	10K	J 1/20W
R304	24011203	Res,Chip	20K	J 1/20W
R305	24872750	Res,Chip	75	J 1/16W
R306	24011105	Res,Chip	1M	J 1/20W
R307	24011563	Res,Chip	56K	J 1/20W
R308	24011332	Res,Chip	3.3K	J 1/20W
R309	24011222	Res,Chip	2.2K	J 1/20W
R310	24011471	Res,Chip	470	J 1/20W
R311	24011911	Res,Chip	910	J 1/20W
R312	24011272	Res,Chip	2.7K	J 1/20W

LOCATION NUMBER	PART NUMBER	DESCRIPTION		
R314	24000445	Res,Chip Jumper	0	
R315	24011182	Res,Chip	1.8K	J 1/20W
R316	24011182	Res,Chip	1.8K	J 1/20W
R317	24011101	Res,Chip	100	J 1/20W
R318	24011102	Res,Chip	1K	J 1/20W
R319	24011182	Res,Chip	1.8K	J 1/20W
R320	24011561	Res,Chip	560	J 1/20W
R321	24011911	Res,Chip	910	J 1/20W
R322	24011182	Res,Chip	1.8K	J 1/20W
R323	24011823	Res,Chip	82K	J 1/20W
R325	24011472	Res,Chip	4.7K	J 1/20W
R328	24011123	Res,Chip	12K	J 1/20W
R329	24011105	Res,Chip	1M	J 1/20W
R330	24011472	Res,Chip	4.7K	J 1/20W
R331	24011472	Res,Chip	4.7K	J 1/20W
R332	24011272	Res,Chip	2.7K	J 1/20W
R333	24000445	Res,Chip Jumper	0	
R334	24011105	Res,Chip	1M	J 1/20W
R335	24011471	Res,Chip	470	J 1/20W
R336	24011272	Res,Chip	2.7K	J 1/20W
R337	24000445	Res,Chip Jumper	0	
R338	24000445	Res,Chip Jumper	0	
R340	24011471	Res,Chip	470	J 1/20W
R341	24011682	Res,Chip	6.8K	J 1/20W
R342	24011153	Res,Chip	15K	J 1/20W
R343	24011362	Res,Chip	3.6K	J 1/20W
R344	24011272	Res,Chip	2.7K	J 1/20W
R345	24011101	Res,Chip	100	J 1/20W
R346	24011101	Res,Chip	100	J 1/20W
R347	24011152	Res,Chip	1.5K	J 1/20W
R348	24011103	Res,Chip	10K	J 1/20W
R349	24011103	Res,Chip	10K	J 1/20W
R351	24011471	Res,Chip	470	J 1/20W
R352	24011105	Res,Chip	1M	J 1/20W
R354	24000445	Res,Chip Jumper	0	
R356	24000445	Res,Chip Jumper	0	
R359	24011682	Res,Chip	6.8K	J 1/20W
R360	24011113	Res,Chip	11K	J 1/20W
R361	24011103	Res,Chip	10K	J 1/20W
R362	24011102	Res,Chip	1K	J 1/20W
R363	24011222	Res,Chip	2.2K	J 1/20W
R364	24011203	Res,Chip	20K	J 1/20W
R365	24011101	Res,Chip	100	J 1/20W
R366	24872271	Res,Chip	270	J 1/16W
R367	24872100	Res,Chip	10	J 1/16W
R368	24872151	Res,Chip	150	J 1/16W
R369	24872100	Res,Chip	10	J 1/16W
R370	24011362	Res,Chip	3.6K	J 1/20W
R371	24011222	Res,Chip	2.2K	J 1/20W
R372	24011222	Res,Chip	2.2K	J 1/20W
R373	24011222	Res,Chip	2.2K	J 1/20W
R376	24011511	Res,Chip	510	J 1/20W
R379	24011471	Res,Chip	470	J 1/20W
R380	24000445	Res,Chip Jumper	0	
R382	24011222	Res,Chip	2.2K	J 1/20W
R384	24011102	Res,Chip	1K	J 1/20W
R385	24000445	Res,Chip Jumper	0	
R386	24011101	Res,Chip	100	J 1/20W
R387	24011101	Res,Chip	100	J 1/20W
R388	24000445	Res,Chip Jumper	0	
R390	24872100	Res,Chip	10	J 1/16W
R391	24872100	Res,Chip	10	J 1/16W
R392	24872101	Res,Chip	100	J 1/16W
R393	24011101	Res,Chip	100	J 1/20W
R394	24000445	Res,Chip Jumper	0	
R397	24000445	Res,Chip Jumper	0	
R398	24011105	Res,Chip	1M	J 1/20W
RF01	24011102	Res,Chip	1K	J 1/20W
RF02	24011102	Res,Chip	1K	J 1/20W
RF03	24872229	Res,Chip	2.2	J 1/16W
RF04	24872229	Res,Chip	2.2	J 1/16W
RF05	24872510	Res,Chip	51	J 1/16W
RF06	24011472	Res,Chip	4.7K	J 1/20W
RF07	24366751	Res,Carbon	750	J 1/6W
RF08	24011560	Res,Chip	56	J 1/20W

LOCATION NUMBER	PART NUMBER	DESCRIPTION		
RF10	24366152	Res,Carbon	1.5K	J 1/6W
RF11	24011560	Res,Chip	56	J 1/20W
RF12	24366152	Res,Carbon	1.5K	J 1/6W
RJ01	24011153	Res,Chip	15K	J 1/20W
RJ02	24011333	Res,Chip	33K	J 1/20W
RJ03	24011102	Res,Chip	1K	J 1/20W
RJ04	24011242	Res,Chip	2.4K	J 1/20W
RJ05	24011102	Res,Chip	1K	J 1/20W
RJ06	24011242	Res,Chip	2.4K	J 1/20W
RJ07	24011102	Res,Chip	1K	J 1/20W
RJ08	24011102	Res,Chip	1K	J 1/20W
RJ09	24011222	Res,Chip	2.2K	J 1/20W
RJ10	24011222	Res,Chip	2.2K	J 1/20W
RJ11	24011102	Res,Chip	1K	J 1/20W
RJ12	24011182	Res,Chip	1.8K	J 1/20W
RJ13	24011153	Res,Chip	15K	J 1/20W
RJ14	24011332	Res,Chip	3.3K	J 1/20W
RJ15	24011103	Res,Chip	10K	J 1/20W
RJ16	24011332	Res,Chip	3.3K	J 1/20W
RJ17	24011273	Res,Chip	27K	J 1/20W
RJ18	24011563	Res,Chip	56K	J 1/20W
RJ19	24011563	Res,Chip	56K	J 1/20W
RJ20	24011105	Res,Chip	1M	J 1/20W
RJ21	24011273	Res,Chip	27K	J 1/20W
RJ22	24011273	Res,Chip	27K	J 1/20W
RJ23	24011105	Res,Chip	1M	J 1/20W
RJ24	24011394	Res,Chip	390K	J 1/20W
RJ25	24011333	Res,Chip	33K	J 1/20W
RJ26	24011394	Res,Chip	390K	J 1/20W
RJ27	24011273	Res,Chip	27K	J 1/20W
RJ28	24011333	Res,Chip	33K	J 1/20W
RJ29	24011273	Res,Chip	27K	J 1/20W
RJ30	24011394	Res,Chip	390K	J 1/20W
RJ31	24011333	Res,Chip	33K	J 1/20W
RJ32	24011123	Res,Chip	12K	J 1/20W
RJ33	24011472	Res,Chip	4.7K	J 1/20W
RJ34	24011222	Res,Chip	2.2K	J 1/20W
RJ35	24011824	Res,Chip	820K	J 1/20W
RJ36	24011105	Res,Chip	1M	J 1/20W
RJ37	24011104	Res,Chip	100K	J 1/20W
RJ38	24011153	Res,Chip	15K	J 1/20W
RJ39	24011105	Res,Chip	1M	J 1/20W
RJ40	24011105	Res,Chip	1M	J 1/20W
RJ41	24011394	Res,Chip	390K	J 1/20W
RJ42	24011473	Res,Chip	47K	J 1/20W
RJ43	24011394	Res,Chip	390K	J 1/20W
RJ44	24011105	Res,Chip	1M	J 1/20W
RJ45	24011103	Res,Chip	10K	J 1/20W
RJ46	24011223	Res,Chip	22K	J 1/20W
RJ47	24011102	Res,Chip	1K	J 1/20W
RJ48	24872475	Res,Chip	4.7M	K 1/16W
RJ49	24872475	Res,Chip	4.7M	K 1/16W
RJ50	24011303	Res,Chip	30K	J 1/20W
RJ51	24011105	Res,Chip	1M	J 1/20W
RJ52	24011473	Res,Chip	47K	J 1/20W
RJ53	24011303	Res,Chip	30K	J 1/20W
RJ54	24011223	Res,Chip	22K	J 1/20W
RJ55	24011153	Res,Chip	15K	J 1/20W
RJ56	24011562	Res,Chip	5.6K	J 1/20W
RJ57	24011153	Res,Chip	15K	J 1/20W
RJ58	24011153	Res,Chip	15K	J 1/20W
RJ59	24011153	Res,Chip	15K	J 1/20W
RJ60	24011394	Res,Chip	390K	J 1/20W
RJ61	24011104	Res,Chip	100K	J 1/20W
RJ62	24011204	Res,Chip	200K	J 1/20W
RJ63	24011473	Res,Chip	47K	J 1/20W
RJ64	24011103	Res,Chip	10K	J 1/20W
RJ65	24011182	Res,Chip	1.8K	J 1/20W
RJ66	24011304	Res,Chip	300K	J 1/20W
RJ67	24011104	Res,Chip	100K	J 1/20W
RJ68	24011223	Res,Chip	22K	J 1/20W
RJ69	24011104	Res,Chip	100K	J 1/20W
RJ70	24011683	Res,Chip	68K	J 1/20W
RJ71	24011394	Res,Chip	390K	J 1/20W
RJ72	24011102	Res,Chip	1K	J 1/20W

LOCATION NUMBER	PART NUMBER	DESCRIPTION		
RJ73	24011204	Res,Chip	200K	J 1/20W
RJ74	24011104	Res,Chip	100K	J 1/20W
RJ75	24011104	Res,Chip	100K	J 1/20W
RJ76	24011623	Res,Chip	62K	J 1/20W
RJ77	24011102	Res,Chip	1K	J 1/20W
RJ78	24011823	Res,Chip	82K	J 1/20W
RJ79	24011154	Res,Chip	150K	J 1/20W
RJ80	24011104	Res,Chip	100K	J 1/20W
RJ81	24011103	Res,Chip	10K	J 1/20W
RJ82	24011222	Res,Chip	2.2K	J 1/20W
RJ83	24011564	Res,Chip	560K	J 1/20W
RJ95	24011563	Res,Chip	56K	J 1/20W
RJ96	24011104	Res,Chip	100K	J 1/20W
RJ97	24011102	Res,Chip	1K	J 1/20W
RJ98	24011105	Res,Chip	1M	J 1/20W
RJ99	24011684	Res,Chip	680K	J 1/20W
RS01	24011122	Res,Chip	1.2K	J 1/20W
RS02	24011332	Res,Chip	3.3K	J 1/20W
RS03	24011222	Res,Chip	2.2K	J 1/20W
RS04	24011102	Res,Chip	1K	J 1/20W
RS05	24000445	Res,Chip Jumper	0	
RS06	24011392	Res,Chip	3.9K	J 1/20W
RS07	24011682	Res,Chip	6.8K	J 1/20W
RS08	24011302	Res,Chip	3K	J 1/20W
RS09	24011102	Res,Chip	1K	J 1/20W
RS10	24011471	Res,Chip	470	J 1/20W
RS11	24011362	Res,Chip	3.6K	J 1/20W
RS12	24011511	Res,Chip	510	J 1/20W
RS13	24011752	Res,Chip	7.5K	J 1/20W
RS14	24011202	Res,Chip	2K	J 1/20W
RS16	24011182	Res,Chip	1.8K	J 1/20W
RS17	24011103	Res,Chip	10K	J 1/20W
RS18	24011182	Res,Chip	1.8K	J 1/20W
RS19	24011103	Res,Chip	10K	J 1/20W
RS20	24011302	Res,Chip	3K	J 1/20W
RS21	24011103	Res,Chip	10K	J 1/20W
RS22	24011303	Res,Chip	30K	J 1/20W
RS23	24011101	Res,Chip	100	J 1/20W
RS24	24011562	Res,Chip	5.6K	J 1/20W
RS25	24011102	Res,Chip	1K	J 1/20W
RS26	24011101	Res,Chip	100	J 1/20W
RS27	24011101	Res,Chip	100	J 1/20W
RS28	24011101	Res,Chip	100	J 1/20W
RS29	24011101	Res,Chip	100	J 1/20W
RS30	24011101	Res,Chip	100	J 1/20W
RS31	24011103	Res,Chip	10K	J 1/20W
RS32	24011103	Res,Chip	10K	J 1/20W
RS33	24011103	Res,Chip	10K	J 1/20W
RS34	24011103	Res,Chip	10K	J 1/20W
RS35	24011103	Res,Chip	10K	J 1/20W
RS36	24011512	Res,Chip	5.1K	J 1/20W
RS37	24011392	Res,Chip	3.9K	J 1/20W
RS38	24011512	Res,Chip	5.1K	J 1/20W
RS39	24011392	Res,Chip	3.9K	J 1/20W
RS40	24011101	Res,Chip	100	J 1/20W
RS41	24011101	Res,Chip	100	J 1/20W
RS42	24011101	Res,Chip	100	J 1/20W
RS43	24011101	Res,Chip	100	J 1/20W
RS44	24011101	Res,Chip	100	J 1/20W
RS45	24011101	Res,Chip	100	J 1/20W
RS46	24011101	Res,Chip	100	J 1/20W
RS47	24011101	Res,Chip	100	J 1/20W
RS48	24011101	Res,Chip	100	J 1/20W
RS49	24011101	Res,Chip	100	J 1/20W
RS50	24011103	Res,Chip	10K	J 1/20W
RS51	24011201	Res,Chip	200	J 1/20W
RS52	24998562	Res,Chip	5.6K	D 1/16W
RS53	24998391	Res,Chip	390	D 1/16W
RS54	24998821	Res,Chip	820	D 1/16W
RS56	24998201	Res,Chip	200	D 1/16W
RS57	24998201	Res,Chip	200	D 1/16W
RS58	24998821	Res,Chip	820	D 1/16W
RS60	24998301	Res,Chip	300	D 1/16W
RS61	24998681	Res,Chip	680	D 1/16W
RS62	24011101	Res,Chip	100	J 1/20W

LOCATION NUMBER	PART NUMBER	DESCRIPTION		
RS81	70421448	Res,Variable	2.2K	1/5W
RT01	24011101	Res,Chip	100	J 1/20W
RT02	24011101	Res,Chip	100	J 1/20W
RT03	24011101	Res,Chip	100	J 1/20W
RT04	24011101	Res,Chip	100	J 1/20W
RT09	24011105	Res,Chip	1M	J 1/20W
RT11	24000445	Res,Chip Jumper	0	
RV21	70421473	Res,Variable,Metal	22K	
RV31	70421454	Res,Variable	10K	
RV32	70421473	Res,Variable,Metal	22K	
RVJ1	70421479	Res,Variable	220K	
RVJ2	70421479	Res,Variable	220K	
		- MISCELLANEOUS -		
⚠ F101	23144127	Fuse,1.0A		
F101A	23165433	Fuse Holder		
P201	23367187	Plug,30P		
P301	23367471	Plug,8P		
P303	23164477	Plug,2p		
P304	23367465	Plug,2P		
P305	23367473	Plug,10P		
P306	23164472	Plug,7p		
P307	23164411	Plug,2p		
P401	23367469	Plug,6P		
PF01	23367478	Plug,15P		
Z302	70132435	Oscillater	VCX0121F	
Z303	70132384	Filter		
■ U501	70187709	P C Board Assy,VIDEO		
		- INTEGRATED CIRCUITS -		
IC500	70128488	IC	CXL1507M	
IC501	70128486	IC	CXA1391R	
IC502	70128487	IC	CXA1392R	
IC503	70128489	IC	CXL5504M	
IC504	70128489	IC	CXL5504M	
IC505	70128489	IC	CXL5504M	
IC506	A6030630	IC	TC7S08F	
IC508	70128705	IC	MM1024AF	
ICA50	70119259	IC	NJM3414M	
ICA51	B0487597	IC	TC74HC4053AF	
ICA52	70128585	IC	CXA1310AQ	
ICA53	70128585	IC	CXA1310AQ	
ICA54	70128585	IC	CXA1310AQ	
		- TRANSISTORS -		
Q510	23314350	Transistor,Chip	XN6401	
Q511	A6549570	Transistor,Chip	2SA1586-Y	
Q523	A6549570	Transistor,Chip	2SA1586-Y	
Q524	23314350	Transistor,Chip	XN6401	
Q525	23314317	Transistor,Chip	XN6501	
Q526	23314317	Transistor,Chip	XN6501	
Q527	23314508	Transistor,Chip	XN1401	
Q528	23314350	Transistor,Chip	XN6401	
Q529	23314317	Transistor,Chip	XN6501	
Q530	23314315	Transistor,Chip	XN4601	
Q535	A6014020	Transistor,Chip	RN2402	
Q536	A6014020	Transistor,Chip	RN2402	
QA01	23314314	Transistor,Chip	XN4501	
QA02	23314314	Transistor,Chip	XN4501	
QA03	23314315	Transistor,Chip	XN4601	
QA04	23314894	Transistor,Chip	XN5531	
QA05	23314507	Transistor,Chip	2SC3931-C	
QA06	23314314	Transistor,Chip	XN4501	
QA07	23314314	Transistor,Chip	XN4501	
QA08	23314315	Transistor,Chip	XN4601	
QA09	23314894	Transistor,Chip	XN5531	
QA10	23314507	Transistor,Chip	2SC3931-C	
QA11	23314314	Transistor,Chip	XN4501	
QA12	23314314	Transistor,Chip	XN4501	
QA13	23314315	Transistor,Chip	XN4601	
QA14	23314894	Transistor,Chip	XN5531	
QA15	23314507	Transistor,Chip	2SC3931-C	
QA16	23314314	Transistor,Chip	XN4501	
QA18	23314507	Transistor,Chip	2SC3931-C	
QA19	A6014020	Transistor,Chip	RN2402	
QA20	A6014020	Transistor,Chip	RN2402	
QA21	A6014020	Transistor,Chip	RN2402	

LOCATION NUMBER	PART NUMBER	DESCRIPTION		
		- COILS -		
L500	23245859	Coil,Chip	TRF4150CC	
L501	23245852	Coil,Chip	TRF41R0C	
L503	23245859	Coil,Chip	TRF4150CC	
L504	23245703	Coil,Chip	TRF4101CS	
L505	23245703	Coil,Chip	TRF4101CS	
L508	23245848	Coil,Chip	TRF4470CC	
L509	23245859	Coil,Chip	TRF4150CC	
LA02	23245859	Coil,Chip	TRF4150CC	
LA03	23245859	Coil,Chip	TRF4150CC	
LA04	23245859	Coil,Chip	TRF4150CC	
LA05	23245852	Coil,Chip	TRF41R0C	
LA06	23245852	Coil,Chip	TRF41R0C	
LA07	23245852	Coil,Chip	TRF41R0C	
		- CAPACITORS -		
C500	24088947	Cap,Chip,Tantalum	22MF	M 10V
C501	24100104	Cap,Chip	0.1MF	Z 25V
C502	24092291	Cap,Chip	1MF	Z 16V
C503	24092291	Cap,Chip	1MF	Z 16V
C504	24092291	Cap,Chip	1MF	Z 16V
C505	24100104	Cap,Chip	0.1MF	Z 25V
C506	24092291	Cap,Chip	1MF	Z 16V
C507	24100104	Cap,Chip	0.1MF	Z 25V
C508	24100104	Cap,Chip	0.1MF	Z 25V
C509	24092291	Cap,Chip	1MF	Z 16V
C510	24100104	Cap,Chip	0.1MF	Z 25V
C511	24105220	Cap,Chip,Ceramic	22PF	J 50V
C512	24100104	Cap,Chip	0.1MF	Z 25V
C513	24100104	Cap,Chip	0.1MF	Z 25V
C514	24100104	Cap,Chip	0.1MF	Z 25V
C516	24092291	Cap,Chip	1MF	Z 16V
C517	24092291	Cap,Chip	1MF	Z 16V
C518	24100104	Cap,Chip	0.1MF	Z 25V
C519	24100104	Cap,Chip	0.1MF	Z 25V
C520	24100104	Cap,Chip	0.1MF	Z 25V
C521	24100104	Cap,Chip	0.1MF	Z 25V
C522	24100104	Cap,Chip	0.1MF	Z 25V
C523	24100104	Cap,Chip	0.1MF	Z 25V
C524	24100104	Cap,Chip	0.1MF	Z 25V
C525	24100104	Cap,Chip	0.1MF	Z 25V
C526	24100104	Cap,Chip	0.1MF	Z 25V
C527	24088947	Cap,Chip,Tantalum	22MF	M 10V
C545	24100104	Cap,Chip	0.1MF	Z 25V
C546	24100104	Cap,Chip	0.1MF	Z 25V
C548	24100104	Cap,Chip	0.1MF	Z 25V
C549	24100104	Cap,Chip	0.1MF	Z 25V
C550	24100104	Cap,Chip	0.1MF	Z 25V
C551	24092291	Cap,Chip	1MF	Z 16V
C552	24100104	Cap,Chip	0.1MF	Z 25V
C553	24092291	Cap,Chip	1MF	Z 16V
C554	24100104	Cap,Chip	0.1MF	Z 25V
C556	24100104	Cap,Chip	0.1MF	Z 25V
C557	24109103	Cap,Chip,Ceramic	0.01MF	K 25V
C558	24100104	Cap,Chip	0.1MF	Z 25V
C559	24100104	Cap,Chip	0.1MF	Z 25V
C560	24088947	Cap,Chip,Tantalum	22MF	M 10V
C561	24092291	Cap,Chip	1MF	Z 16V
C562	24100104	Cap,Chip	0.1MF	Z 25V
C563	24109103	Cap,Chip,Ceramic	0.01MF	K 25V
C564	24092291	Cap,Chip	1MF	Z 16V
C565	24092291	Cap,Chip	1MF	Z 16V
C566	24100104	Cap,Chip	0.1MF	Z 25V
C567	24109103	Cap,Chip,Ceramic	0.01MF	K 25V
C568	24092291	Cap,Chip	1MF	Z 16V
C569	24105470	Cap,Chip,Ceramic	47PF	J 50V
C570	24105470	Cap,Chip,Ceramic	47PF	J 50V
C571	24742220	Cap,Electrolytic	22MF	M 6.3V
C572	24100104	Cap,Chip	0.1MF	Z 25V
C573	24100104	Cap,Chip	0.1MF	Z 25V
C574	24100104	Cap,Chip	0.1MF	Z 25V
C575	24092291	Cap,Chip	1MF	Z 16V
C576	24100104	Cap,Chip	0.1MF	Z 25V
C577	24109103	Cap,Chip,Ceramic	0.01MF	K 25V
C578	24092291	Cap,Chip	1MF	Z 16V
C579	24105470	Cap,Chip,Ceramic	47PF	J 50V
C580	24105470	Cap,Chip,Ceramic	47PF	J 50V
C581	24742220	Cap,Electrolytic	22MF	M 6.3V
C585	24100104	Cap,Chip	0.1MF	Z 25V
C586	24088948	Cap,Chip,Tantalum	47MF	M 10V
C587	24088948	Cap,Chip,Tantalum	47MF	M 10V
C588	24105101	Cap,Chip,Ceramic	100PF	J 50V
C592	24085986	Cap,Electrolytic	10MF	M 10V
C593	24100104	Cap,Chip	0.1MF	Z 25V
C594	24742101	Cap,Electrolytic	100MF	M 6.3V
C595	24100104	Cap,Chip	0.1MF	Z 25V
C596	24088968	Cap,Chip,Tantalum	22MF	M 4V
C659	24744100	Cap,Electrolytic	10MF	M 16V
C660	24743101	Cap,Electrolytic	100MF	M 10V
C661	24743101	Cap,Electrolytic	100MF	M 10V
C662	24744100	Cap,Electrolytic	10MF	M 16V
C663	24100104	Cap,Chip	0.1MF	Z 25V
CA01	24088948	Cap,Chip,Tantalum	47MF	M 10V
CA02	24088947	Cap,Chip,Tantalum	22MF	M 10V
CA03	24088947	Cap,Chip,Tantalum	22MF	M 10V
CA04	24088947	Cap,Chip,Tantalum	22MF	M 10V
CA05	24743101	Cap,Electrolytic	100MF	M 10V
CA06	24293106	Cap,Chip,Tantalum	10MF	M 16V
CA07	24743101	Cap,Electrolytic	100MF	M 10V
CA08	24293106	Cap,Chip,Tantalum	10MF	M 16V
CA09	24743101	Cap,Electrolytic	100MF	M 10V
CA10	24293106	Cap,Chip,Tantalum	10MF	M 16V
CA11	24088947	Cap,Chip,Tantalum	22MF	M 10V
CA12	24290475	Cap,Chip,Tantalum	4.7MF	M 4V
CA13	24092291	Cap,Chip	1MF	Z 16V
CA14	24742220	Cap,Electrolytic	22MF	M 6.3V
CA15	24092291	Cap,Chip	1MF	Z 16V
CA18	24100104	Cap,Chip	0.1MF	Z 25V
CA19	24092291	Cap,Chip	1MF	Z 16V
CA22	24100104	Cap,Chip	0.1MF	Z 25V
CA23	24092291	Cap,Chip	1MF	Z 16V
CA26	24100104	Cap,Chip	0.1MF	Z 25V
CA27	24092291	Cap,Chip	1MF	Z 16V
CA28	24100104	Cap,Chip	0.1MF	Z 25V
CA29	24105220	Cap,Chip,Ceramic	22PF	J 50V
CA30	24100104	Cap,Chip	0.1MF	Z 25V
CA31	24092291	Cap,Chip	1MF	Z 16V
CA32	24105220	Cap,Chip,Ceramic	22PF	J 50V
CA33	24100104	Cap,Chip	0.1MF	Z 25V
CA34	24092291	Cap,Chip	1MF	Z 16V
CA35	24105220	Cap,Chip,Ceramic	22PF	J 50V
CA36	24100104	Cap,Chip	0.1MF	Z 25V
CA37	24092291	Cap,Chip	1MF	Z 16V
		- RESISTORS -		
R500	24011222	Res,Chip	2.2K	J 1/20W
R501	24011222	Res,Chip	2.2K	J 1/20W
R502	24011222	Res,Chip	2.2K	J 1/20W
R503	24011102	Res,Chip	1K	J 1/20W
R504	24011102	Res,Chip	1K	J 1/20W
R505	24011102	Res,Chip	1K	J 1/20W
R506	24011392	Res,Chip	3.9K	J 1/20W
R507	24011102	Res,Chip	1K	J 1/20W
R508	24011223	Res,Chip	22K	J 1/20W
R509	24011123	Res,Chip	12K	J 1/20W
R510	24011153	Res,Chip	15K	J 1/20W
R511	24011473	Res,Chip	47K	J 1/20W
R512	24011123	Res,Chip	12K	J 1/20W
R513	24011103	Res,Chip	10K	J 1/20W
R514	24011562	Res,Chip	5.6K	J 1/20W
R516	24011822	Res,Chip	8.2K	J 1/20W
R517	24011103	Res,Chip	10K	J 1/20W
R518	24011822	Res,Chip	8.2K	J 1/20W
R519	24011822	Res,Chip	8.2K	J 1/20W
R520	24011682	Res,Chip	6.8K	J 1/20W
R521	24011123	Res,Chip	12K	J 1/20W
R522	24011153	Res,Chip	15K	J 1/20W
R523	24011103	Res,Chip	10K	J 1/20W
R524	24011103	Res,Chip	10K	J 1/20W
R525	24011822	Res,Chip	8.2K	J 1/20W
R556	24000445	Res,Chip Jumper	0	
R559	24011222	Res,Chip	2.2K	J 1/20W

LOCATION NUMBER	PART NUMBER	DESCRIPTION		
R563	24011682	Res,Chip	6.8K	J 1/20W
R564	24011163	Res,Chip	16K	J 1/20W
R565	24011103	Res,Chip	10K	J 1/20W
R566	24000445	Res,Chip Jumper	0	
R567	24011512	Res,Chip	5.1K	J 1/20W
R568	24011103	Res,Chip	10K	J 1/20W
R569	24011102	Res,Chip	1K	J 1/20W
R570	24011103	Res,Chip	10K	J 1/20W
R571	24011683	Res,Chip	68K	J 1/20W
R572	24011272	Res,Chip	2.7K	J 1/20W
R573	24011123	Res,Chip	12K	J 1/20W
R574	24000445	Res,Chip Jumper	0	
R576	24011123	Res,Chip	12K	J 1/20W
R578	24011223	Res,Chip	22K	J 1/20W
R579	24011105	Res,Chip	1M	J 1/20W
R581	24011122	Res,Chip	1.2K	J 1/20W
R582	24011122	Res,Chip	1.2K	J 1/20W
R583	24011332	Res,Chip	3.3K	J 1/20W
R584	24011105	Res,Chip	1M	J 1/20W
R585	24011272	Res,Chip	2.7K	J 1/20W
R586	24011102	Res,Chip	1K	J 1/20W
R587	24011302	Res,Chip	3K	J 1/20W
R588	24011152	Res,Chip	1.5K	J 1/20W
R589	24011112	Res,Chip	1.1K	J 1/20W
R590	24011102	Res,Chip	1K	J 1/20W
R591	24011332	Res,Chip	3.3K	J 1/20W
R592	24011222	Res,Chip	2.2K	J 1/20W
R593	24011472	Res,Chip	4.7K	J 1/20W
R594	24011272	Res,Chip	2.7K	J 1/20W
R595	24011221	Res,Chip	220	J 1/20W
R596	24011103	Res,Chip	10K	J 1/20W
R597	24011122	Res,Chip	1.2K	J 1/20W
R598	24011122	Res,Chip	1.2K	J 1/20W
R599	24011332	Res,Chip	3.3K	J 1/20W
R600	24011105	Res,Chip	1M	J 1/20W
R601	24011272	Res,Chip	2.7K	J 1/20W
R602	24011102	Res,Chip	1K	J 1/20W
R603	24011302	Res,Chip	3K	J 1/20W
R604	24011152	Res,Chip	1.5K	J 1/20W
R605	24011112	Res,Chip	1.1K	J 1/20W
R606	24011102	Res,Chip	1K	J 1/20W
R607	24011102	Res,Chip	1K	J 1/20W
R608	24011222	Res,Chip	2.2K	J 1/20W
R609	24011332	Res,Chip	3.3K	J 1/20W
R610	24011103	Res,Chip	10K	J 1/20W
R611	24011303	Res,Chip	30K	J 1/20W
R612	24011102	Res,Chip	1K	J 1/20W
R613	24011102	Res,Chip	1K	J 1/20W
R615	24011102	Res,Chip	1K	J 1/20W
R617	24011103	Res,Chip	10K	J 1/20W
R618	24011222	Res,Chip	2.2K	J 1/20W
R619	24998103	Res,Chip	10K	D 1/16W
R620	24998182	Res,Chip	1800	D 1/16W
R621	24998622	Res,Chip	6200	D 1/16W
R622	24011272	Res,Chip	2.7K	J 1/20W
R624	24872750	Res,Chip	75	J 1/16W
R631	24000445	Res,Chip Jumper	0	
R633	24011562	Res,Chip	5.6K	J 1/20W
R635	24000445	Res,Chip Jumper	0	
R636	24011102	Res,Chip	1K	J 1/20W
R637	24000445	Res,Chip Jumper	0	
R655	24872750	Res,Chip	75	J 1/16W
R656	24872750	Res,Chip	75	J 1/16W
R657	24011434	Res,Chip	430K	J 1/20W
R658	24011332	Res,Chip	3.3K	J 1/20W
R659	24011332	Res,Chip	3.3K	J 1/20W
R660	24000445	Res,Chip Jumper	0	
R662	24000445	Res,Chip Jumper	0	
R663	24011102	Res,Chip	1K	J 1/20W
R664	24000445	Res,Chip Jumper	0	
R665	24000445	Res,Chip Jumper	0	
R667	24000445	Res,Chip Jumper	0	
R668	24000445	Res,Chip Jumper	0	
R669	24000445	Res,Chip Jumper	0	
RA01	24011332	Res,Chip	3.3K	J 1/20W

LOCATION NUMBER	PART NUMBER	DESCRIPTION		
RA02	24011102	Res,Chip	1K	J 1/20W
RA03	24011102	Res,Chip	1K	J 1/20W
RA04	24011102	Res,Chip	1K	J 1/20W
RA05	24011272	Res,Chip	2.7K	J 1/20W
RA06	24011472	Res,Chip	4.7K	J 1/20W
RA07	24011472	Res,Chip	4.7K	J 1/20W
RA08	24011182	Res,Chip	1.8K	J 1/20W
RA09	24011102	Res,Chip	1K	J 1/20W
RA10	24011103	Res,Chip	10K	J 1/20W
RA11	24011102	Res,Chip	1K	J 1/20W
RA12	24011102	Res,Chip	1K	J 1/20W
RA13	24011102	Res,Chip	1K	J 1/20W
RA14	24011222	Res,Chip	2.2K	J 1/20W
RA15	24011272	Res,Chip	2.7K	J 1/20W
RA16	24011243	Res,Chip	24K	J 1/20W
RA17	24011123	Res,Chip	12K	J 1/20W
RA18	24000445	Res,Chip Jumper	0	
RA19	24011471	Res,Chip	470	J 1/20W
RA20	24011332	Res,Chip	3.3K	J 1/20W
RA21	24011102	Res,Chip	1K	J 1/20W
RA22	24011102	Res,Chip	1K	J 1/20W
RA23	24011102	Res,Chip	1K	J 1/20W
RA24	24011272	Res,Chip	2.7K	J 1/20W
RA25	24011472	Res,Chip	4.7K	J 1/20W
RA26	24011472	Res,Chip	4.7K	J 1/20W
RA27	24011182	Res,Chip	1.8K	J 1/20W
RA28	24011102	Res,Chip	1K	J 1/20W
RA29	24011103	Res,Chip	10K	J 1/20W
RA30	24011102	Res,Chip	1K	J 1/20W
RA31	24011102	Res,Chip	1K	J 1/20W
RA32	24011102	Res,Chip	1K	J 1/20W
RA33	24011222	Res,Chip	2.2K	J 1/20W
RA34	24011272	Res,Chip	2.7K	J 1/20W
RA35	24011333	Res,Chip	33K	J 1/20W
RA36	24011432	Res,Chip	4.3K	J 1/20W
RA37	24011361	Res,Chip	360	J 1/20W
RA38	24011471	Res,Chip	470	J 1/20W
RA39	24011332	Res,Chip	3.3K	J 1/20W
RA40	24011102	Res,Chip	1K	J 1/20W
RA41	24011102	Res,Chip	1K	J 1/20W
RA42	24011102	Res,Chip	1K	J 1/20W
RA43	24011272	Res,Chip	2.7K	J 1/20W
RA44	24011472	Res,Chip	4.7K	J 1/20W
RA45	24011472	Res,Chip	4.7K	J 1/20W
RA46	24011182	Res,Chip	1.8K	J 1/20W
RA47	24011102	Res,Chip	1K	J 1/20W
RA48	24011103	Res,Chip	10K	J 1/20W
RA49	24011102	Res,Chip	1K	J 1/20W
RA50	24011102	Res,Chip	1K	J 1/20W
RA51	24011102	Res,Chip	1K	J 1/20W
RA52	24011222	Res,Chip	2.2K	J 1/20W
RA53	24011272	Res,Chip	2.7K	J 1/20W
RA54	24011123	Res,Chip	12K	J 1/20W
RA55	24011273	Res,Chip	27K	J 1/20W
RA56	24011102	Res,Chip	1K	J 1/20W
RA57	24011471	Res,Chip	470	J 1/20W
RA58	24011103	Res,Chip	10K	J 1/20W
RA59	24011102	Res,Chip	1K	J 1/20W
RA60	24011153	Res,Chip	15K	J 1/20W
RA61	24011102	Res,Chip	1K	J 1/20W
RA62	24011102	Res,Chip	1K	J 1/20W
RA63	24011102	Res,Chip	1K	J 1/20W
RA64	24011102	Res,Chip	1K	J 1/20W
RA65	24011102	Res,Chip	1K	J 1/20W
RA66	24000445	Res,Chip Jumper	0	
RA67	24011222	Res,Chip	2.2K	J 1/20W
RA68	24011102	Res,Chip	1K	J 1/20W
RA69	24011103	Res,Chip	10K	J 1/20W
RA70	24011104	Res,Chip	100K	J 1/20W
RA71	24872750	Res,Chip	75	J 1/16W
RA72	24011152	Res,Chip	1.5K	J 1/20W
RA73	24011242	Res,Chip	2.4K	J 1/20W
RA74	24011752	Res,Chip	7.5K	J 1/20W
RA75	24011152	Res,Chip	1.5K	J 1/20W
RA76	24872750	Res,Chip	75	J 1/16W

LOCATION NUMBER	PART NUMBER	DESCRIPTION		
RA77	24011152	Res,Chip	1.5K	J 1/20W
RA78	24011242	Res,Chip	2.4K	J 1/20W
RA79	24011752	Res,Chip	7.5K	J 1/20W
RA80	24011152	Res,Chip	1.5K	J 1/20W
RA81	24000445	Res,Chip Jumper	0	
RA83	24872750	Res,Chip	75	J 1/16W
RA84	24011152	Res,Chip	1.5K	J 1/20W
RA85	24011242	Res,Chip	2.4K	J 1/20W
RA86	24011752	Res,Chip	7.5K	J 1/20W
RA87	24011152	Res,Chip	1.5K	J 1/20W
RA88	24000445	Res,Chip Jumper	0	
RA90	24000445	Res,Chip Jumper	0	
RA91	24000445	Res,Chip Jumper	0	
RA93	24000445	Res,Chip Jumper	0	
RA94	24011104	Res,Chip	100K	J 1/20W
RA95	24000445	Res,Chip Jumper	0	
RA96	24011104	Res,Chip	100K	J 1/20W
RA97	24000445	Res,Chip Jumper	0	
RA98	24000445	Res,Chip Jumper	0	
RA99	24000445	Res,Chip Jumper	0	
RV51	70421473	Res,Variable,Metal	22K	
RV52	70421473	Res,Variable,Metal	22K	
RV53	70421473	Res,Variable,Metal	22K	
RV55	70421473	Res,Variable,Metal	22K	
RV56	70421473	Res,Variable,Metal	22K	
RV57	70421473	Res,Variable,Metal	22K	
RV58	70421473	Res,Variable,Metal	22K	
RV59	70421473	Res,Variable,Metal	22K	
RV60	70421473	Res,Variable,Metal	22K	
RV61	70421473	Res,Variable,Metal	22K	
RV62	70421473	Res,Variable,Metal	22K	
RV64	70421473	Res,Variable,Metal	22K	
RV65	70421473	Res,Variable,Metal	22K	
RV66	70421473	Res,Variable,Metal	22K	
RVA1	70421448	Res,Variable	2.2K	1/5W
RVA2	70421448	Res,Variable	2.2K	1/5W
RVA3	70421448	Res,Variable	2.2K	1/5W
RVA5	70421450	Res,Variable,Metal	4.7K	
RVA7	70421450	Res,Variable,Metal	4.7K	
RVA8	70421450	Res,Variable,Metal	4.7K	
RVA9	70421450	Res,Variable,Metal	4.7K	
		- MISCELLANEOUS -		
P501	70164284	Pin Header	30P	
P504	23164475	Plug	4P	
P505	23164477	Plug	2P	
P506	23367465	Plug	2P	
P508	23367465	Plug	2P	
PA01	23164473	Plug	6P	
SA01	23145478	Slide Switch	1C2P	
SA02	23145478	Slide Switch	1C2P	
SA03	23145478	Slide Switch	1C2P	
Z501	70132393	Filter		
Z502	70132394	Filter		
Z503	70132392	Filter		
Z504	70132434	BPF,4.43MHz		
Z506	70132334	Delay Line		
ZA01	70132348	Delay Line	180ns	
ZA02	70132348	Delay Line	180ns	
ZA03	70132348	Delay Line	180ns	
■ UL01	70187710	P C Board Assy,FRONT		
		- TRANSISTORS -		
QM01	A6004040	Transistor,Chip	RN1404	
		- DIODES -		
DM01	A8690540	Diode,LED	TLUR163	
DM02	A8690640	Diode,LED	TLUG163	
		- COILS -		
LM01	23245859	Coil,Chip	TRF4150CC	
		- CAPACITORS -		
CM02	24088947	Cap,Chip,Tantalum	22MF	M 10V
		- RESISTORS -		
RM01	24011104	Res,Chip	100K	J 1/20W
RM02	24011102	Res,Chip	1K	J 1/20W
RM03	24011104	Res,Chip	100K	J 1/20W
RM04	24000445	Res,Chip Jumper	0	

LOCATION NUMBER	PART NUMBER	DESCRIPTION		
RM05	24011562	Res,Chip	5.6K	J 1/20W
RM06	24011222	Res,Chip	2.2K	J 1/20W
RM07	24011222	Res,Chip	2.2K	J 1/20W
RM09	24011102	Res,Chip	1K	J 1/20W
RM10	24011302	Res,Chip	3K	J 1/20W
RM11	24011122	Res,Chip	1.2K	J 1/20W
RM12	24011103	Res,Chip	10K	J 1/20W
RM13	24011103	Res,Chip	10K	J 1/20W
RV90	70421338	Res,Variable	10K	0.3W
RV91	70421338	Res,Variable	10K	0.3W
RV92	70421330	Res,Variable	470	0.3W
		- MISCELLANEOUS -		
SM01	23145533	Slide Switch	2C2P	
SM02	23145532	Slide Switch	2C3P	
SM03	23145532	Slide Switch	2C3P	
SM04	23145532	Slide Switch	2C3P	
SM05	23145510	Push Switch	1C1P	
■ UL09	70187720	P C Board,CONNECTOR		
■ UM01	70187711	P C Board Assy,REAR1		
		- MISCELLANEOUS -		
ZL01	70132330	Filter		
■ UN01	70187712	P C Board Assy, REAR2		
		- INTEGRATED CIRCUITS -		
ICL01	A6030620	IC	TC7S04F	
ICL02	B0488265	IC	TC74HC11AF	
		- CAPACITORS -		
CL01	24100104	Cap,Chip	0.1MF	Z 25V
		- RESISTORS -		
RL10	24011104	Res,Chip	100K	J 1/20W
RL11	24011104	Res,Chip	100K	J 1/20W
RL12	24011104	Res,Chip	100K	J 1/20W
RL13	24011104	Res,Chip	100K	J 1/20W
RL14	24000445	Res,Chip Jumper	0	
RL15	24011103	Res,Chip	10K	J 1/20W
RL16	24011103	Res,Chip	10K	J 1/20W
RV10	70421340	Res,Variabl	22K	0.3W
RV11	70421332	Res,Variable	1K	0.3W
		- MISCELLANEOUS -		
SL10	70145405	Switch		
SL11	23145478	Slide Switch	1C2P	
SL12	23145478	Slide Switch	1C2P	
■ UX01	70187719	P C Board Assy,MOTHER		
		- CAPACITORS -		
CM72	24774220	Cap,Chip	22PF	J 50V
		- RESISTORS -		
RM70	24011101	Res,Chip	100	J 1/20W
RM71	24011101	Res,Chip	100	J 1/20W
RM72	24011472	Res,Chip	4.7K	J 1/20W
		- MISCELLANEOUS -		
PM01	70164287	Socket	30P	
PM02	23901581	Socket	30P	
■ UZ01	70187721	P C Board,D-SUB		

LOCATION NUMBER	PART NUMBER	DESCRIPTION	
		- MECHANICAL PARTS -	
A001	70834156	Camera Head A/S	
A201	70884253	Front Panel	
A203	70891033	Bushing Cap	
A204	70814284	Top Cover A/S	
A204C	70391276	Screw	2x5mm
A204D	70860194	Foot Rubber	
A208A	70391276	Screw	2x5mm
A209A	70391276	Screw	2x5mm
A210	70817129	Back Cover	
A210A	70391276	Screw	2x5mm
A211	70881674	Button	
A212	70974466	Pairring Label	
A701	70917611	Carton	
A701A	70974757	Label	
A702	70921425	Packing	
A703	70921424	Packing	
A710	70933137	Poli Cover	
PL01	70165208	Receptacle	HR10-7R-4PB
PL03	70165249	Receptacle	TCS7848
PL10	70165206	Receptacle	01K312
PL11	70165206	Receptacle	01K312
PL91	70165250	Connector	10A-10TR12PE
PZ01	70164695	Socket	15P D-T-N JAE
U101A	70391436	Screw	2x0.4x5mm
U501A	70391436	Screw	2x0.4x5mm
UN02A	70391436	Screw	2x0.4x5mm
Y101	70842574	Holder	
Y102	70971457	Manual	
Y102A	70933020	Cover	
Y103	70164272	Plug	

LOCATION NUMBER	PART NUMBER	DESCRIPTION